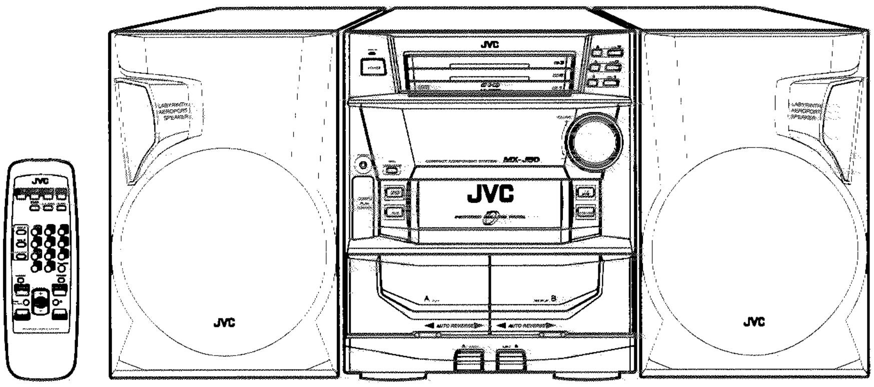
JVC

SERVICE MANUAL

COMPACT COMPONENT SYSTEM

MX-J50 / MX-J56



This Illustration is MX-J50

Area Suffix(MX-J50)	
J	U.S.A.
C	Canada
U	Other Areas
US	Singapore
UX	Saudi Arabia
UT	Taiwan
UP	Korea
UY	Argentina
A	Australia

Area Suffix(MX-J56)	
C	Canada

Each difference point

Model	Version	Color	Optical out	MIC,ECHO
MX-J50	except U type	Light silver	O	X
MX-J50	only U type	Light silver	O	O
MX-J56	C	Light silver + Gray	X	X

COMPACT
disc
DIGITAL AUDIO

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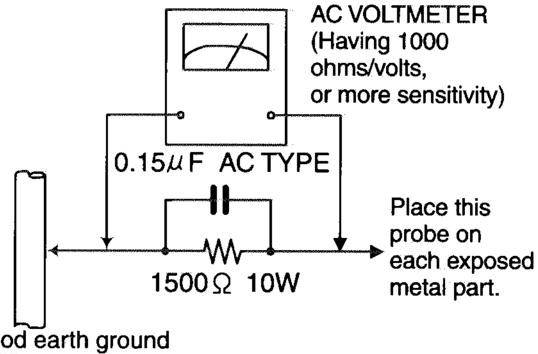
No.20735
Mar. 1999

Safety Precautions

1. This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer`s warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (⚠) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage current check (Electrical shock hazard testing)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
   Do not use a line isolation transformer during this check.
   - ● Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet , particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.)
   - ● Alternate check method
     Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground.
     Measure the AC voltage across the resistor with the AC voltmeter.
     Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now reverse the plug in the AC outlet and repeat each measurement voltage measured any must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).

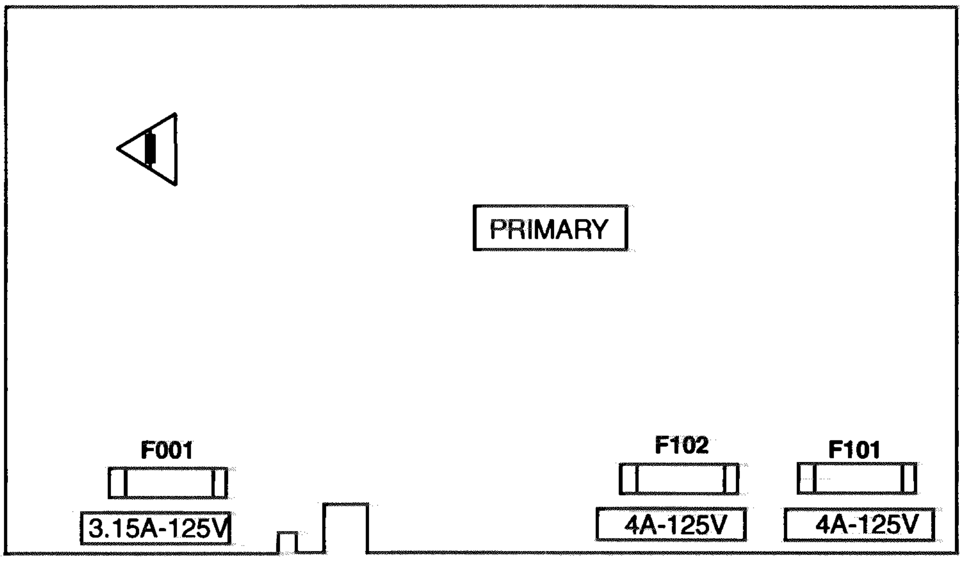

AC VOLTMETER
(Having 1000 ohms/volts, or more sensitivity)
0.15µF AC TYPE
1500Ω 10W
Place this probe on each exposed metal part.
Good earth ground

Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

⚠ ***CAUTION*** **Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of preforming repair of this system.**

■ Importance Admistering point on the Safety



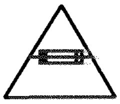
Power supply board (solder side)

Note : It's means "J" for U.S.A. market model and "C" for canada market model.

MX-J50C/J ONLY

Full Fuse Replacement Marking

Graphic symbol mark
(This symbol means fast blow type fuse.)



should be read as follows ;

FUSE CAUTION

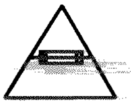
FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE AND RATING OF FUSES ;

F001 : 3.15-A, 125-V
F101 : 4- A, 125-V
F102 : 4-A, 125-V

MX-J50C/J SEULEMENT

Marquage Pour Le Remplacement Complet De Fusible

Le symbole graphique (Ce symbole signifie fusible de type á fusion rapide.)



doit être interprété comme suit ;

PRECAUTIONS SUR LES FUSIBLES

POUR UNE PROTECTION CONTINUE CONTRE DES RISQUES D'INCENDIE, REMPLACER SEULEMENT PAR UN FUSIBLE DU MEME TYPE ;

F001 : 3.15-A, 125-V
F101 : 4- A, 125-V
F102 : 4-A, 125-V

Important for Laser Products

1.**CLASS 1 LASER PRODUCT**

2.**DANGER** : Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.

3.**CAUTION** : There are no serviceable parts inside the Laser Unit. Do not disassemble the Laser Unit. Replace the complete Laser Unit if it malfunctions.

4.**CAUTION** : The compact disc player uses invisible laserradiation and is equipped with safety switches whichprevent emission of radiation when the drawer is open and the safety interlocks have failed or are defeated. It is dangerous to defeat the safety switches.

5.**CAUTION** : If safety switches malfunction, the laser is able to function.

6.**CAUTION** : Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

⚠ ***CAUTION*** **Please use enough caution not to see the beam directly or touch it in case of an adjustment or operation check.**

VARNING : Osynlig laserstrålning är denna del är öppnad och spårren är urkopplad. Betrakta ej strålen.

VARO : Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle.Älä katso säteeseen.

ADVARSEL : Usynlig laserstråling ved åbning , når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

ADVARSEL : Usynlig laserstråling ved åpning,når sikkerhetsbryteren er avslott. unngå utsettelse for stråling.

REPRODUCTION AND POSITION OF LABELS

WARNING LABEL

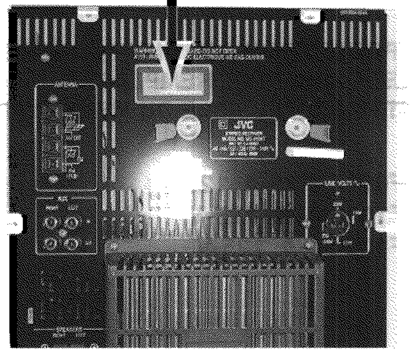
DANGER : Invisible laser radiation when open and interlock or defeated.
AVOID DIRECT EXPOSURE TO BEAM (e)

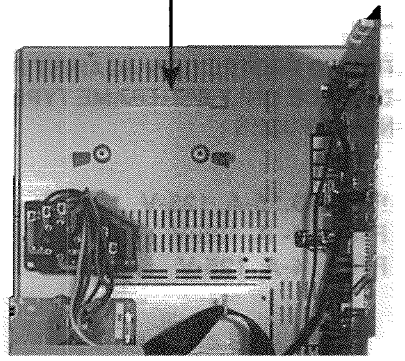
VARO : Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle.Älä katso säteeseen. (d)

VARNING : Osynlig laserstrålning är denna del är öppnad och spårren är urkopplad. Betrakta ej strålen. (s)

ADVARSEL :Usynlig laserstråling ved åbning , når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling. (f)

CLASS 1
LASER PRODUCT



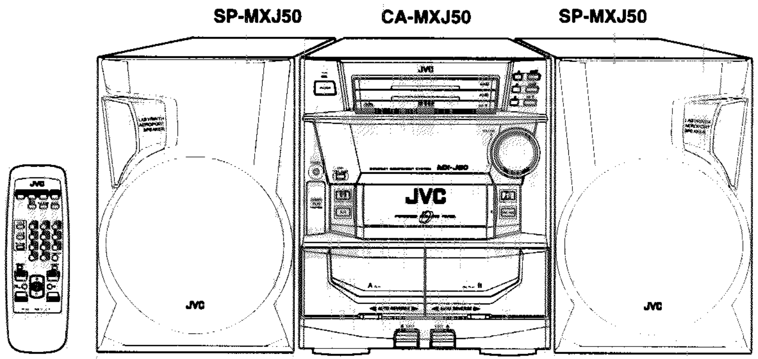


JVC

COMPACT COMPONENT SYSTEM

MX-J50

Consists of CA-MXJ50 and SP-MXJ50.



COMPACT
disc
DIGITAL AUDIO

INSTRUCTIONS

For Customer Use:
Enter below the Model No. and Serial No. which are located either on the rear, bottom or side of the cabinet. Retain this information for future reference.

Model No. ____________

Serial No. ____________

GVT0012-001C
[J]

Warnings, Cautions and Others

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

For U.S.A.
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.
This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
Reorient or relocate the receiving antenna.
Increase the separation between the equipment and receiver.
Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
Consult the dealer or an experienced radio/TV technician for help.

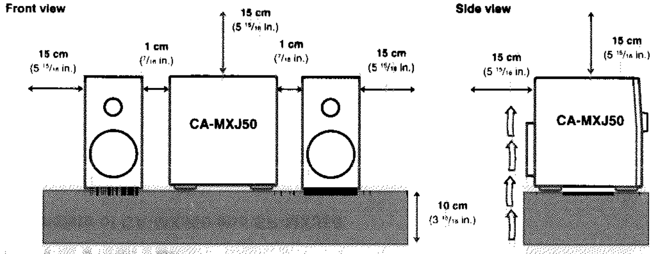
WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION
To reduce the risk of electrical shocks, fire, etc.:
1. Do not remove screws, covers or cabinet.
2. Do not expose this appliance to rain or moisture.

Caution — POWER switch!
Disconnect the mains plug to shut the power off completely. The POWER switch in any position does not disconnect the mains line. The power can be remote controlled.

1. CLASS 1 LASER PRODUCT
2. **DANGER:** Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
3. **CAUTION:** Do not open the top cover. There are no user serviceable parts inside the Unit; leave all servicing to qualified service personnel.

Caution: Proper Ventilation
To avoid risk of electric shock and fire, and to prevent damage, locate the apparatus as follows:
1 Front:
No obstructions and open spacing.
2 Sides/ Top/ Back:
No obstructions should be placed in the areas shown by the dimensions below.
3 Bottom:
Place on the level surface. Maintain an adequate air path for ventilation by placing on a stand with a height of 10 cm (3 $^{15}/_{16}$ in.) or more.



Introduction

We would like to thank you for purchasing one of our JVC products. Before operating this unit, read this manual carefully and thoroughly to obtain the best possible performance from your unit, and retain this manual for future reference.

About This Manual

This manual is organized as follows:

- **The manual mainly explains operations using the buttons and controls on the unit. You can also use the buttons on the remote control if they have the same or similar names (or marks) as those on the unit.**
  If operation using the remote control is different from that using the unit, it is then explained.
- Basic and common information that is the same for many functions is grouped in one place, and is not repeated in each procedure. For instance, we do not repeat the information about turning on/off the unit, setting the volume, changing the sound effects, and others, which are explained in the section "Common Operations" on pages 9 to 11.
- The following marks are used in this manual:

STOP Gives you warnings and cautions to prevent from a damage or risk of fire/electric shock. Also gives you information which is not good for obtaining the best possible performance from the unit.

notes Gives you information and hints you had better know.

Precautions

Installation

- Install in a place which is level, dry and neither too hot nor too cold — between 5°C (41°F) and 35°C (95°F).
- Install the unit in a location with adequate ventilation to prevent internal heat built-up in the unit.
- Leave sufficient distance between the unit and the TV.
- Keep the speakers away from the TV to avoid interference with TV.

STOP DO NOT install the unit in a location near heat sources, or in a place subject to direct sunlight, excessive dust or vibration.

Power sources

- When unplugging from the wall outlet, always pull the plug, not the AC power cord.

STOP DO NOT handle the AC power cord with wet hands.

Moisture condensation

Moisture may condense on the lens inside the unit in the following cases:

- After starting heating in the room
- In a damp room
- If the unit is brought directly from a cold to a warm place

Should this occur, the unit may malfunction. In this case, leave the unit turned on for a few hours until the moisture evaporates, unplug the AC power cord, and then plug it in again.

Others

- Should any metallic object or liquid fall into the unit, unplug the unit and consult your dealer before operating any further.
- If you are not going to operate the unit for an extended period of time, unplug the AC power cord from the wall outlet.

STOP DO NOT disassemble the unit since there are no user serviceable parts inside.

If anything goes wrong, unplug the AC power cord and consult your dealer.

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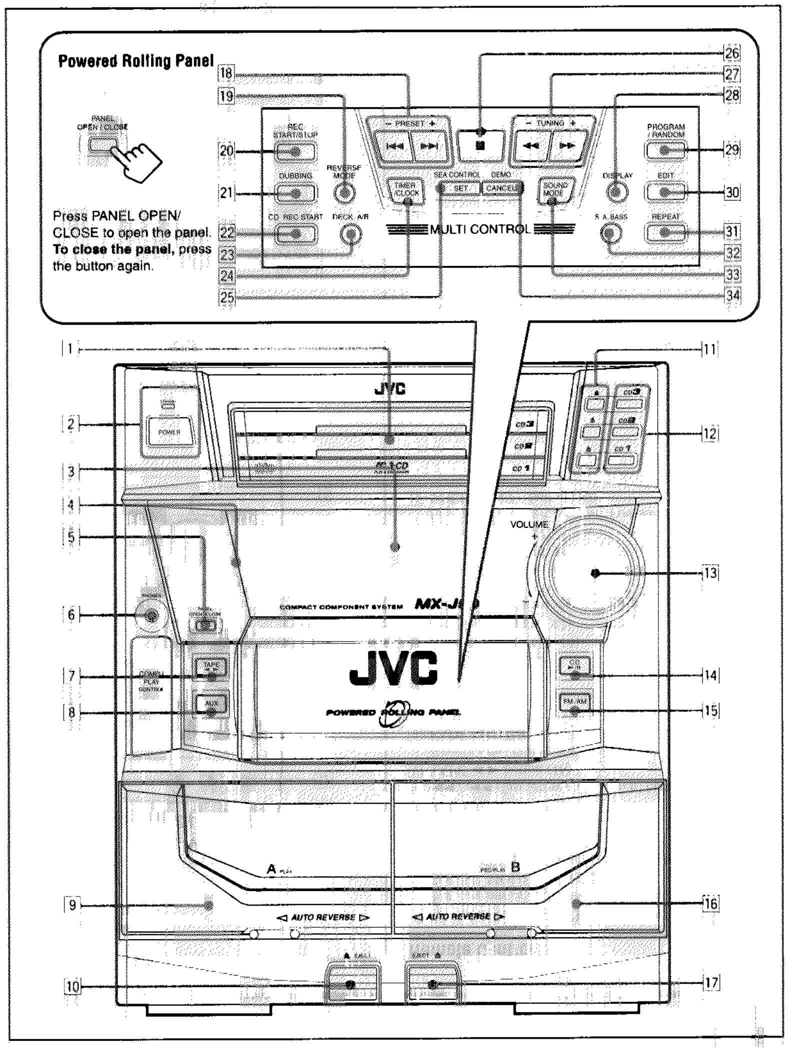
Location of the Buttons and Controls

Become familiar with the buttons and controls on your unit.



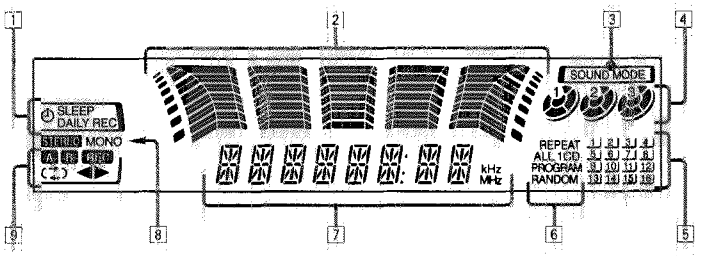
Powered Rolling Panel

Press PANEL OPEN/ CLOSE to open the panel. **To close the panel,** press the button again.

PANEL OPEN / CLOSE
REC START/STOP
DUBBING
REVERSE MODE
CD REC START
DECK A/B
– PRESET +
TIMER /CLOCK
SEA CONTROL
SET
DEMO
CANCEL
– TUNING +
SOUND MODE
MULTI CONTROL
DISPLAY
S.A.BASS
PROGRAM /RANDOM
EDIT
REPEAT
POWER
JVC
CD3
CD2
CD1
VOLUME
COMPACT COMPONENT SYSTEM MX-J
TAPE
AUX
CD
FM/AM
POWERED ROLLING PANEL
A PLAY
REC/PLAY B
AUTO REVERSE
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34

Continued

Display Window



See pages in the parentheses for details.

Front Panel

1 Disc trays
2 POWER button and STANDBY lamp (9)
3 Display window
4 Remote sensor
5 PANEL OPEN/CLOSE button (9)
Pressing this button also turns on the unit.
6 PHONES jack (10)
7 TAPE ◄ ► button and lamp (16)
Pressing this button also turns on the unit.
8 AUX button and lamp (9)
Pressing this button also turns on the unit.
9 Deck A cassette holder (16)
10 ▲ EJECT button for deck A (16)
11 ▲ (CD tray open/close) buttons (13)
Pressing one of these buttons also turns on the unit.
12 Disc number buttons and lamps (CD 1, CD 2, and CD 3) (13)
Pressing one of these buttons also turns on the unit.
13 VOLUME control (10)
14 CD ►/❚❚ (play/pause) button and lamp (13)
Pressing this button also turns on the unit.
15 FM/AM button and lamp (12)
Pressing this button also turns on the unit.
16 Deck B cassette holder (17)
17 EJECT ▲ button for deck B (17)

Powered Rolling Panel

18 PRESET – / + buttons (12)
|◄◄ / ►►| (reverse search/forward search) buttons (9, 11, 14, 19, 20)
19 REVERSE MODE button (16, 18, 19)
20 REC START/STOP button (17, 19)
21 DUBBING button (18)
22 CD REC START button (18, 19)
23 DECK A/B button (16)
24 TIMER/CLOCK button (9, 20)
25 SET button (9, 20)
SEA CONTROL button (11)
26 ■ (stop) button (13, 16)
27 TUNING – / + buttons (12)
◄◄ / ►► (fast left/fast right) buttons (11, 14, 16)
28 DISPLAY button (9)
29 PROGRAM/RANDOM button (14, 15, 18)
30 EDIT button (19)
31 REPEAT button (15)
32 S. A. BASS (Signal Adaptive Bass) button and lamp (10)
33 SOUND MODE button (10)
34 CANCEL button (9, 15, 20)
DEMO button (8)

Display window

1 Timer indicators
- ⏲, SLEEP, REC, and DAILY indicators

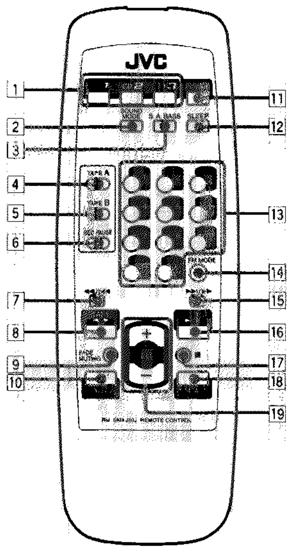
2 Audio level indicator
SEA (Sound Effect Amplifier) pattern indicator
3 SOUND MODE indicator
4 Disc indicators
5 CD track number indicators
6 CD play mode indicators
- REPEAT (ALL/1CD/1), PROGRAM, and RANDOM indicators

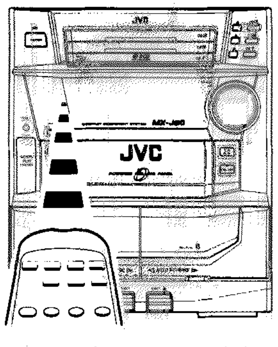
7 Main display
- Shows the source name, frequency, etc.

8 Tuner operation indicators
- STEREO and MONO indicators

9 Tape operation indicators
- A/B (operating deck), REC, (⮂) (reverse mode), and ◄ ► (tape direction) indicators

Remote Control





When using the remote control, point it at the remote sensor on the front panel.

Remote Control

1 Disc number buttons (CD 1, CD 2, and CD 3) (13)
Pressing one of these buttons also turns on the unit.
2 SOUND MODE button (10)
3 S. A. BASS (Signal Adaptive Bass) button (10)
4 TAPE A button (16)
5 TAPE B button (16)
6 REC PAUSE button (17)
7 ◄◄ / |◄◄ (fast left/reverse search) button (14 – 16)
8 TAPE ◄ ► button (16)
Pressing this button also turns on the unit.
9 FADE MUTING button (10)
10 AUX button (9)
Pressing this button also turns on the unit.
11 POWER button (9)
12 SLEEP button (22)
13 Number buttons (12, 14)
14 FM MODE button (12)
15 ►►| / ►► (forward search/fast right) button (14 – 16)
16 CD ►/❚❚ button (13)
Pressing this button also turns on the unit.
17 ■ (stop) button (13, 16)
18 FM/AM button (12)
Pressing this button also turns on the unit.
19 VOLUME + / – button (10)

Getting Started

Continued

Unpacking

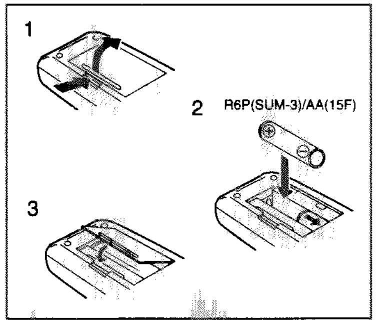
After unpacking, check to be sure that you have all the following items.
The number in the parentheses indicates the quantity of the pieces supplied.

- AM loop antenna (1)
- FM antenna (1)
- Remote control (1)
- Batteries (2)

If any is missing, consult your dealer immediately.

Putting the Batteries into the Remote Control

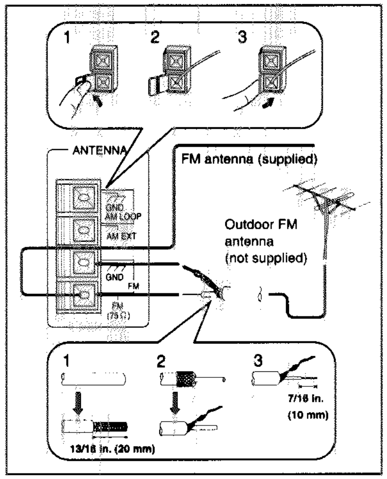
Insert the batteries — R6P(SUM-3)/AA(15F) — into the remote control, by matching the polarity (+ and –) on the batteries with the + and – markings on the battery compartment.
When the remote control can no longer operate the unit, replace both batteries at the same time.


1
2
R6P(SUM-3)/AA(15F)
3

- DO NOT use an old battery together with a new one.
- DO NOT use different types of batteries together.
- DO NOT expose batteries to heat or flame.
- DO NOT leave the batteries in the battery compartment when you are not going to use the remote control for an extended period of time. Otherwise, it will be damaged from battery leakage.

Connecting Antennas

FM antenna

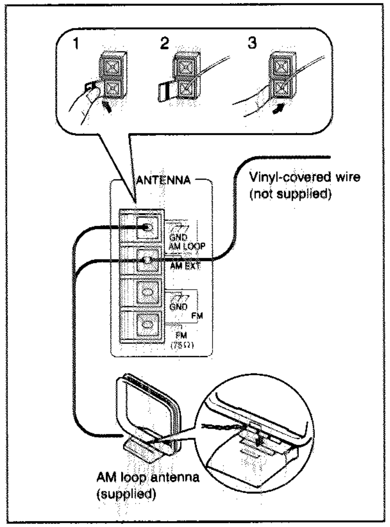

1
2
3
ANTENNA
GND
AM LOOP
AM EXT
GND
FM
FM (75Ω)
FM antenna (supplied)
Outdoor FM antenna (not supplied)
1
2
3
7/16 in. (10 mm)
13/16 in. (20 mm)

Extend the FM antenna (supplied) horizontally.

If reception is poor, connect the outdoor antenna
Connect the outdoor antenna.
Before attaching a 75-ohm coaxial cable (the kind with a round wire going to an outdoor antenna), disconnect the supplied FM antenna.

How to strip the 75-ohm coaxial cable and connect it to the FM terminals
1. Strip off the outside covering of the 75-ohm coaxial cable to expose the braided metallic mesh about 13/16 inches (20 mm).
2. Pull the mesh back and twist it into a single conductor as shown in the illustration above.
3. Strip the insulation about 7/16 inches (10 mm) back from the central wire.
4. Insert the twisted mesh and the central wire into the FM terminals, as shown in the illustration above.

AM antenna


1
2
3
ANTENNA
GND
AM LOOP
AM EXT
GND
FM
FM (75Ω)
Vinyl-covered wire (not supplied)
AM loop antenna (supplied)

1. **Connect the AM loop antenna to the AM LOOP terminals as illustrated.**
2. **Turn the AM loop antenna until you have the best reception.**

To connect an outdoor AM antenna

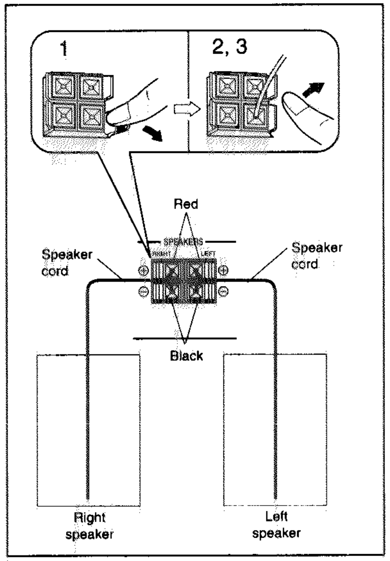
When reception is poor, connect a single vinyl-covered wire to the AM EXT terminal and extend it horizontally. (The AM loop antenna must remain connected.)

For better reception of both FM and AM
- Make sure the antenna conductors do not touch any other terminals and connecting cords.
- Keep the antennas away from metallic parts of the unit, connecting cords, and the AC power cord.

Connecting Speakers

You can connect a pair of front speakers, and one subwoofer.

To connect front speakers

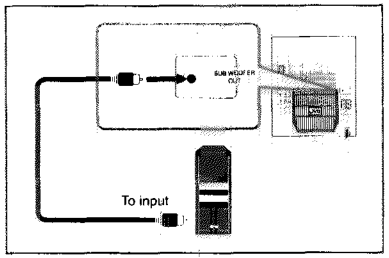

1
2, 3
Red
SPEAKERS
RIGHT
LEFT
Speaker cord
Speaker cord
Black
Right speaker
Left speaker

1. **Press and hold the clamp of the speaker terminal on the rear of the unit.**
2. **Insert the end of the speaker cord into the terminal.**
   Match the polarity of the speaker terminals: Red (+) to red (+) and black (–) to black (–).
3. **Release the finger from the clamp.**

IMPORTANT: Use only speakers with the same speaker impedance as indicated by the speaker terminals on the rear of the unit.

To connect a subwoofer

By connecting a subwoofer, you can enhance the bass.



Connect the input jack of a powered subwoofer to the SUB WOOFER OUT jack, using a monaural audio cord (not supplied).

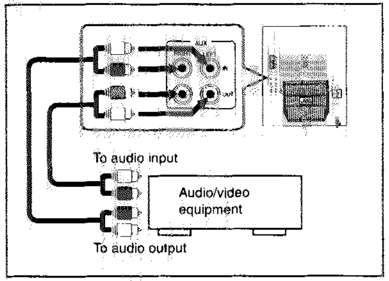
Connecting Other Equipment

You can connect both analog and digital equipment.

- DO NOT connect any equipment while the power is on.
- DO NOT plug in any equipment until all connections are complete.

To connect an analog component

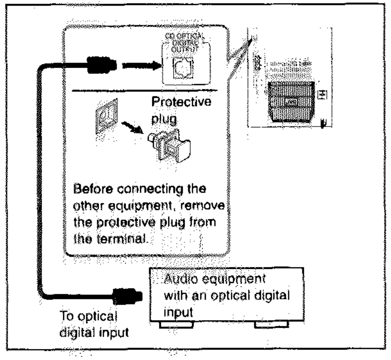
Be sure that the plugs of the audio cords are color coded: White plugs and jacks are for left audio signals, and red ones for right audio signals.



By using audio cords (not supplied), connect:
- Between the audio input jacks on the other equipment and AUX OUT jacks: For recording on the other equipment.
- Between the audio output jacks on the other equipment and AUX IN jacks: For playing the other equipment.

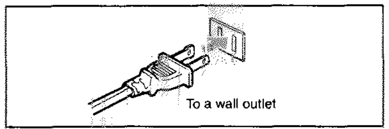
To connect audio equipment with an optical digital input terminal

You can record CD sound onto the connected digital equipment.


CD OPTICAL DIGITAL OUTPUT
Protective plug
Before connecting the other equipment, remove the protective plug from the terminal.
Audio equipment with an optical digital input
To optical digital input

Connect an optical digital cord (not supplied) between the optical digital input terminal on the other equipment and the CD OPTICAL DIGITAL OUTPUT terminal.

NOW, you can plug in the unit and other connected equipment FINALLY!



When connecting the AC power cord into a wall outlet, the unit automatically starts display demonstration.

To stop the display demonstration, press any button on the unit or the remote control.

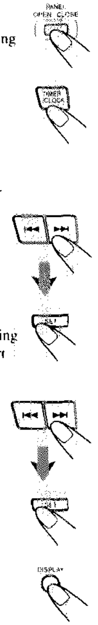
To start the display demonstration manually
Press and hold DEMO for more than 2 seconds.

To stop the demonstration, press any button.

Common Operations

Setting the Clock

Before operating the unit any further, first set the clock built in this unit.



1 Press PANEL OPEN/CLOSE.
The unit is turned on and the Powered Rolling Panel opens automatically.

2 Press TIMER/CLOCK.

AM 12:00

The hour digits start flashing on the display.

3 Press ⏮ or ⏭ to adjust the hour, then press SET.

PM 5:00

- If you want to correct the hour after pressing SET, press CANCEL. The hour digits start flashing again.

4 Press ⏮ or ⏭ to adjust the minute, then press SET.

CLOCK OK

To check the clock time

Press DISPLAY while playing any source.
- Each time you press the button, the source indication and the clock time alternate on the display.

To adjust the clock again

If you have adjusted the clock before, you need to press TIMER/CLOCK repeatedly until the clock setting mode is selected.
- Each time you press the button, the timer/clock setting modes change as follows:

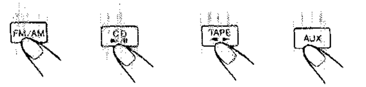
→ DAILY → ON TIME → REC
← Canceled ← Clock setting ← ON TIME ←
(The hour digits start flashing.)

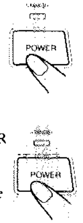
If there is a power failure
The clock loses the setting and is reset to "AM 12:00." You need to set the clock again.

Turning On the Power and Selecting the Sources

When you press the play button for a particular source (FM/AM, CD ►/II, AUX, and TAPE ◄ ►), the unit turns on, and the Powered Rolling Panel opens automatically (and the unit starts playing the source if it is ready — COMPU PLAY CONTROL).

To listen to the FM/AM broadcasts, press FM/AM. (See page 12.)
To play back CDs, press CD ►/II. (See pages 13 – 15.)
To play back tapes, press TAPE ◄ ►. (See page 16.)
To select the external equipment as the source, press AUX.





To turn on the unit without playing, press POWER so that the STANDBY lamp goes off.

WELCOME

The Powered Rolling Panel opens automatically.

To turn off the unit (on standby), press POWER again so that the STANDBY lamp lights up.
The Powered Rolling Panel also closes.
A little power is always consumed even while the unit is on standby.

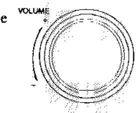
To switch off the power supply completely, unplug the AC power cord from the AC outlet.

When you unplug the AC power cord or if a power failure occurs
The clock is reset to "AM 12:00" right away, while the tuner preset stations (see page 12) will be erased in a few days.

Adjusting the Volume

You can adjust the volume level only while the unit is turned on.

Turn VOLUME clockwise to increase the volume or counterclockwise to decrease it.



VOL - 16

When using the remote control, press VOLUME + to increase the volume or press VOLUME – to decrease it.

For private listening
Connect a pair of headphones to the PHONES jack. No sound comes out of the speakers. Be sure to turn down the volume before connecting or putting on headphones.

> DO NOT turn off (on standby) the unit with the volume set to an extremely high level; otherwise, a sudden blast of sound can damage your hearing, speakers and/or headphones when you turn on the unit or start playing any source next time.
> REMEMBER you cannot adjust the volume level while the unit is on standby.

To turn down the volume level temporarily

Press FADE MUTING on the remote control.
The volume level gradually decreases to "0."

FADE MUTING

VOL - 16

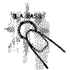
VOL - 0

To restore the sound, press the button again.

Reinforcing the Bass Sound

The Signal Adaptive Bass function provided for this unit can enhance the bass sound and reduce the bass sound distortion while listening to any source at low volume.
You can use this function only for playback.

To turn on the function, press S. A. BASS repeatedly until "SA-BASS1" or "SA-BASS2" appears on the display.



SA-BASS 1

The S. A. BASS lamp (the button itself) also lights up.

- Each time you press the button, the Signal Adaptive Bass level applied to the playback sound changes as follows:

→ SA-BASS1 → SA-BASS2 → OFF (Canceled) →

When you select "SA-BASS2," the bass sound level is enhanced much more than when you select "SA-BASS1."

- While playing back some sources, the level difference between "SA-BASS1" and "SA-BASS2" may not be distinct.

To turn off the function, press the button repeatedly until "OFF" appears on the display.

If you want to check the Signal Adaptive Bass level currently selected
While the S. A. BASS lamp is lit, press S. A. BASS once so that the current level appears for a while.

Selecting the Sound Modes

You can select one of the 6 preset sound modes (3 surround modes and 3 SEA - Sound Effect Amplifier - modes). The sound modes can be applied only to playback sounds, and cannot be used for recording.

To select the sound modes, press SOUND MODE until the sound mode you want appears on the display. The SOUND MODE indicator also lights up on the display.

D.CLUB

- Each time you press the button, the sound modes change as follows:

→ D.CLUB (Dance CLUB) → HALL → STADIUM → ROCK → POP → CLASSIC → MANUAL1 → MANUAL2 → MANUAL3 → OFF (Canceled) →

Surround modes *:

D.CLUB:	Increases resonance and bass.
HALL:	Adds depth and brilliance to the sound.
STADIUM:	Adds clarity and spreads the sound, like in an outdoor stadium.

SEA modes:

ROCK:	Boosts low and high frequency. Good for acoustic music.
POP:	Good for vocal music.
CLASSIC:	Good for classical music.

Manual modes:

MANUAL1/2/3:	Your individual mode stored in memory. See "Creating Your Own Sound Mode — Manual Mode."
OFF:	Cancels the sound mode.

* Surround elements are added to the SEA elements to create a being-there feeling in your room.
When one of these modes is selected, the SOUND MODE indicator lights up as — SOUND MODE

While one of the SEA modes including manual modes (SEA elements without surround elements) is selected, it lights up as — SOUND MODE

Creating Your Own Sound Mode — Manual Mode

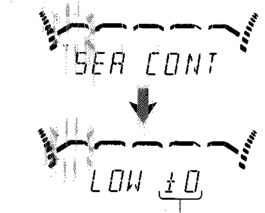
You can change SEA pattern to suit your preference. These changed settings can be stored in the MANUAL 1, 2, and 3 modes.

- There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.
- **If you want to add the surround elements in your SEA pattern,** select one of the surround modes (D.CLUB, HALL, or STADIUM) before starting the procedure below.

On the unit ONLY:

1 Press and hold SEA CONTROL until "SEA CONT" appears on the display.

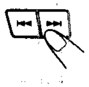
SEA CONTROL



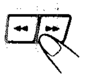
Current level appears.

2 Adjust the SEA pattern.

1) **Press ⏮ or ⏭ to select the frequency range to adjust (LOW, MID, HIGH).**



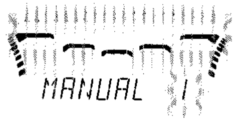
2) **Press ◀◀ or ▶▶ to adjust the level (–3 to +3) of the selected frequency range.**



3) **Repeat steps 1) and 2) to adjust the level of the other frequency ranges.**

3 Press SEA CONTROL again.

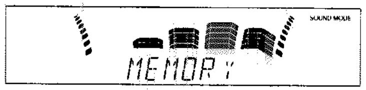
SEA CONTROL



4 Press ⏮ or ⏭ to select one of the MANUAL 1, 2, and 3 modes into which you want to store the SEA pattern.

5 Press SEA CONTROL again.

SEA CONTROL



The SOUND MODE indicator also lights up.
The SEA pattern you have created are stored into the MANUAL mode selected in the above step.

To use your own sound mode

Select MANUAL 1, 2, or 3 mode when using the sound modes. See "Selecting the Sound Modes."

Listening to FM and AM Broadcasts

Tuning In a Station

On the unit ONLY:

1 Press FM/AM.

The unit automatically turns on and tunes in the previously tuned station (either FM or AM). The Powered Rolling Panel automatically opens.

- Each time you press the button, the band alternates between FM and AM.

2 Press and hold TUNING – / + for more than 1 second.

The unit starts searching for stations and stops when a station of sufficient signal strength is tuned in.

If a program is broadcast in stereo, the STEREO indicator lights up.

To stop during searching, press TUNING – / +.

When you press TUNING – / + briefly and repeatedly

The frequency changes step by step.

To change the FM reception mode

When an FM stereo broadcast is hard to receive or noisy, press FM MODE on the remote control so that the MONO indicator lights up on the display.

Reception improves.

To restore the stereo effect, press FM MODE again so that the MONO indicator goes off.

In this stereo mode, you can hear stereo sounds when a program is broadcast in stereo.

Presetting Stations

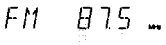
You can preset 30 FM and 15 AM stations.

In some cases, test frequencies have been already memorized for the tuner since the factory examined the tuner preset function before shipment. This is not a malfunction. You can preset the stations you want into memory by following the presetting method.

- There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.

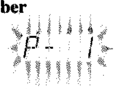
1 Tune in the station you want to preset.

- See "Tuning in a Station" above.



2 Press SET.

3 Press PRESET – / + to select a preset number



4 Press SET again.

The tuned station in step 1 is stored in the preset number selected in step 3.

- Storing a new station on a used number erases the previously stored one.

When you unplug the AC power cord or if a power failure occurs

The preset stations will be erased in a few days. If this happens, preset the stations again.

Tuning in a Preset Station

1 Press FM/AM.

The unit automatically turns on and tunes in the previously tuned station (either FM or AM). The Powered Rolling Panel automatically opens.

- Each time you press the button, the band alternates between FM and AM.

2 Select a preset number.

On the unit:

Press PRESET – / +.

On the remote control:

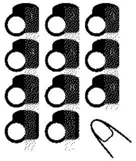
Press the number buttons.

For preset number 5, press 5.

For preset number 15, press +10 then 5.

For preset number 20, press +10, then 10.

For preset number 25, press +10, +10, then 5.



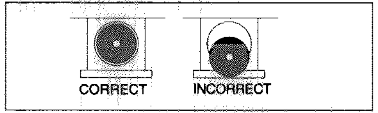
Playing Back CDs

Loading CDs

1 Press ≜ for the disc tray (CD 1 to 3) you want to load a CD onto.

The unit automatically turns on and the disc tray comes out. The Powered Rolling Panel also opens automatically.

2 Place a disc correctly on the circle of the disc tray, with its label side up.



- When using a CD single (8 cm), place it on the inner circle of the disc tray.

3 Press the same ≜ you have pressed in step 1.

The disc tray closes, and the corresponding disc number indicator (CD 1 to CD 3) lights up on the display.

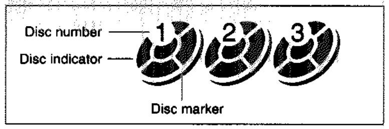
4 Repeat steps 1 to 3 to place other CDs.

When loading more than one CD continuously

When you press ≜ for the next tray you want to place another CD onto, the first disc tray automatically closes and then the next tray comes out.

About the disc indicators

Each disc indicator corresponds to the disc tray of the same number.



- The disc marker lights up for the disc number you have selected.
- The disc indicator flashes while the corresponding CD is being played.
- The disc indicator goes off when the unit has detected that there is no CD on the corresponding disc tray.

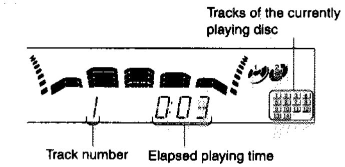
Playing Back the Entire Discs — Continuous Play

You can play CDs continuously.

1 Load CDs.

2 Press one of the disc number buttons (CD 1, CD 2 and CD 3) for the disc you want to play.

CD play starts from the first track of the selected disc.



- Pressing CD ▶/❚❚ instead of the disc number buttons starts playing back if a CD is on the trays.

To stop during play, press ■.

To remove the disc, press ≜ for the corresponding disc tray.

CD playback sequence

When 3 CDs are loaded on the disc trays, they are played in one of the following sequences.

- When CD 1 is pressed : CD 1 ⇨ CD 2 ⇨ CD 3 (then stops)
- When CD 2 is pressed : CD 2 ⇨ CD 3 ⇨ CD 1 (then stops)
- When CD 3 is pressed : CD 3 ⇨ CD 1 ⇨ CD 2 (then stops)

* When only 2 CDs are loaded, they are played in the same order, but the disc tray without a CD is skipped.

Basic CD Operations

While playing a CD, you can do the following operations.

To exchange CDs during playback of another

Press ≜ corresponding to a CD, not playing or selected currently, to eject and exchange the CD.

If you exchange CDs during play, the current play will not stop until all CDs you have exchanged are played.

To stop play for a moment

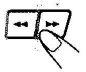
Press CD ▶/❚❚.

While pausing, the elapsed playing time flashes on the display.

To resume play, press CD ▶/❚❚ again.

Continued

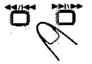
To locate a particular point in a track



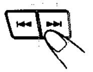
During play, press and hold ◄◄ or ►►.

- ◄◄ : Fast reverses the disc.
- ►► : Fast forwards the disc.

When using the remote control, press and hold ◄◄ / |◄◄ or ►►| / ►►.



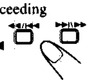
To go to another track



Press |◄◄ or ►►| repeatedly before or during playback.

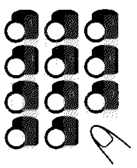
- |◄◄: Goes back to the beginning of the current or previous tracks.
- ►►|: Skips to the beginning of the next or succeeding tracks.

When using the remote control, press ◄◄ / |◄◄ or ►►| / ►► before playing.



If you press and hold |◄◄ / ►►| (or ◄◄ / |◄◄ or ►►| / ►► before playing)
You can change the tracks continuously.

To go to another track directly using the number buttons



Pressing the number button(s) before or during play allows you to start playing the track number you want.

Ex.: For track number 5, press 5.
For track number 15, press +10 then 5.
For track number 20, press +10, then 10.
For track number 32, press +10 , +10, +10, then 2.

Programming the Playing Order of the Tracks — Program Play

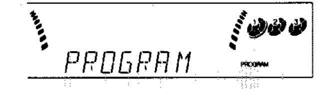
You can arrange the order in which the tracks play before you start playing. You can program up to 32 tracks.

- To use Repeat play (see page 15) for Program play, press REPEAT after starting Program play.

1 **Load discs.**

- If the current playing source is not the CD player, press CD ►/II, then ■ before going to the next step.

2 **Press PROGRAM/RANDOM repeatedly until "PROGRAM" appears on the display.**

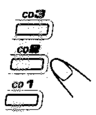


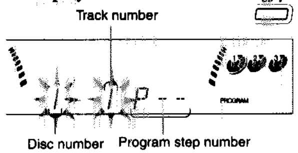
- If a program has been stored in memory, the program is called up.

- Each time you press the button, CD play mode changes as follows:

Program Play → Random Play
Continuous Play

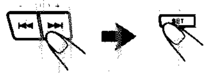
3 **Press one of the disc number buttons (CD 1, CD 2, and CD 3) to select the disc number you want to play.**



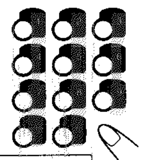


4 **Select a track from the CD selected in the above step.**

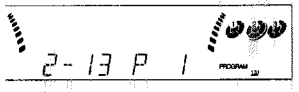
On the unit:
Press |◄◄ or ►►| to select the track number, then press SET.



On the remote control:
Press the number buttons.



- For how to use the number buttons, see "To go to another track directly using the number buttons" described to the left.



5 **Program other tracks you want.**

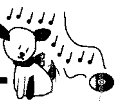
- To program tracks from the same disc, repeat step 4.
- To program tracks from a different disc, repeat steps 3 and 4.

6 **Press CD ►/II.**

The tracks are played in the order you have programed.

To stop during play, press ■.

To exit from program play mode, press PROGRAM/ RANDOM repeatedly again before or after play so that the unit enters another play mode. (The program you have made is stored in memory until you turn off the unit or erase the program.)



To check the program contents

Before playing, you can check the program contents by pressing ◄◄ / |◄◄ or ►►| / ►► on the remote control.

- ►►| / ►►: Shows the programed tracks in the programed order.
- ◄◄ / |◄◄: Shows them in the reverse order.

To modify the program

Before play, you can erase the programed tracks shown on the display by pressing CANCEL.

- Each time you press the button, the programed track shown on the display is erased from the program.

To add tracks in the program before play, simply select the track numbers you want to add by following step 4 of the programming procedure on page 14.

To erase the entire program before or after play, press ■. "PROGRAM" appears on the display.

- Ejecting a CD will also erase the track numbers programed from the ejected CD.

If you try to program a 33rd step
"FULL" will appear on the display.

If your entry is ignored
You have tried to program a track from an empty tray, or a track number that does not exist on the CD (for example, selecting track 14 on a CD that only has 12 tracks). Such entries are ignored.

Playing at Random — Random Play

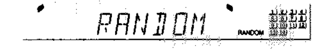
The tracks of all loaded CDs will play at random.

- To use Repeat play for Random play, press REPEAT after starting Random play.

1 **Prepare CDs.**

- If the current playing source is not the CD player, press CD ►/II, then ■ before going to the next step.

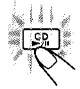
2 **Press PROGRAM/RANDOM repeatedly until "RANDOM" appears on the display.**



- Each time you press the button, CD play mode changes as follows:

Program Play → Random Play
Continuous Play

3 **Press CD ►/II.**



The tracks are played at random.
Random play ends when all the tracks are played once.

To stop during play, press ■.

- Random play also stops when one of the disc trays is opened.

To exit from Random play mode, press PROGRAM/ RANDOM repeatedly again before or after play so that the unit enters another play mode.

Even If you press |◄◄ (or ◄◄ / |◄◄ on the remote control)
You cannot go back to the previous tracks during Random play.

- If you press ►►| (or ►►| / ►► on the remote control), you can go to next random tracks.

Repeating Tracks or CDs — Repeat Play

You can have all the CDs, the program or the individual track currently playing repeat as many times as you like.

To repeat play, press REPEAT during or before playing. To use Repeat play for Program play and Random play, press the button after starting playback.

- Each time you press the button, Repeat play mode changes as follows, and the following indicator lights up on the display:

REPEAT ALL → REPEAT 1CD
Canceled ← REPEAT 1
(Continuous play)

REPEAT ALL: Repeats all the tracks on all the CDs (continuously or at random), or all the tracks in the program.
REPEAT 1CD*: Repeats all the tracks on one CD.
REPEAT 1: Repeats one track on one CD.

* REPEAT 1CD is not used for Program play and Random play.

To cancel Repeat play, press REPEAT repeatedly until the REPEAT indicator (REPEAT ALL, REPEAT 1CD, or REPEAT 1) goes off from the display.

- Repeat play is also canceled when you select Program play or Random play.

Prohibiting Disc Ejection — Tray Lock

You can prohibit CD ejection from the unit and can lock discs.

- This operation is possible only using the buttons on the unit.

To prohibit disc ejection, press ≜ for any disc tray while holding ■. (If there is any disc tray opened, close it first.) "LOCKED" appears for a while, and the loaded CDs are locked.

To cancel the prohibition and unlock the CDs, press ≜ for any disc tray while holding ■.
"UNLOCKED" appears for a while, and the loaded CDs are unlocked.

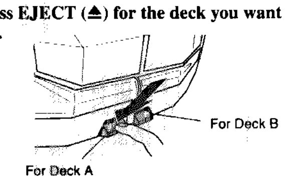
If you try to eject CDs
"LOCKED" appears to inform you that the Tray Lock is in use.

Playing Back Tapes

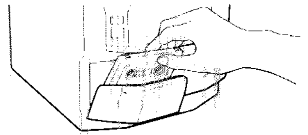
You can play back type I, type II, and type IV tapes without changing any settings.

Playing Back a Tape

1 Press EJECT (≜) for the deck you want to use.



2 Put a cassette in, with the exposed part of the tape down.

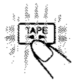


3 Close the cassette holder gently.

If you put cassettes in both decks A and B, the last deck you have put a cassette into is selected.

To operate the other deck, press DECK A/B (or TAPE A or TAPE B on the remote control).

4 Press TAPE ◄ ►.



The tape play starts and the tape direction indicator (◄ ►) starts flashing slowly to indicate the tape running direction.

- Each time you press the button, the tape direction changes.
  - ► : plays the front side.
  - ◄ : plays the reverse side.

When the tape plays to the end, the deck automatically stops if the Reverse Mode is not on. (See "To play both sides repeatedly — Reverse Mode.")

To stop during play, press ■.

To operate the other deck, press DECK A/B (or TAPE A or TAPE B on the remote control), then TAPE ◄ ►.

To fast wind to the left or to the right, press ◄◄ / ►► (◄◄ / I◄◄ or ►►I / ►► on the remote control) while the tape is not running.
The tape direction indicator (◄ ►) starts flashing quickly on the display.

To remove the cassette, press ≜ EJECT for deck A or EJECT ≜ for deck B.

To play both sides repeatedly — Reverse Mode

Reverse Mode works for both decks at the same time.
When it is in use, the tape automatically reverses at the end of a side and the unit starts playing the other side of the tape, and repeats the same process.

REVERSE MODE

To use Reverse Mode, press REVERSE MODE so that the Reverse Mode indicator on the display lights up like — (⇄)

To cancel Reverse Mode, press the button again so that the Reverse Mode indicator on the display lights up like — ⇄

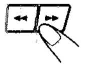
When Reverse Mode is on with cassettes in both decks A and B

After the reverse (◄) side of the tape finishes playing, the tape in the other deck starts playing.

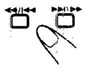
Locating the beginning of a Song — Music Scan

You can use Music Scan to locate the beginning of a song. Music Scan searches for blank portions that usually separate recorded songs, then plays the next song.

To find the beginning of the current song



During play, press ◄◄ / ►► (◄◄ / I◄◄ or ►►I / ►► on the remote control) in **the opposite direction** to the tape play.
The tape direction indicator of the opposite direction to the tape play starts flashing slowly and quickly alternately.



Searching stops automatically at the beginning of the current song, and the current song starts automatically.

To find the beginning of the next song

During play, press ◄◄ / ►► (◄◄ / I◄◄ or ►►I / ►► on the remote control) in **the same direction** as the tape play.
The tape direction indicator of the same direction as the tape play starts flashing slowly and quickly alternately.

Searching stops automatically at the beginning of the next song, and the next song starts automatically.

Music Scan works by detecting a 4-second long blank between each song, so it will not work well in the following cases.

- No blank at the beginning of a song.
- Noise (often caused by much use or poor quality dubbing) which fills the blank.
- Long, very soft passages or pauses in a song.

The use of the C-120 or thinner tape is not recommended, since characteristic deterioration may occur and this tape easily jams in the pinch-rollers and the capstans.

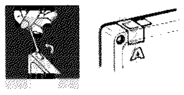
Recording

IMPORTANT:

- **It should be noted that it may be unlawful to re-record pre-recorded tapes, records, or discs without the consent of the owner of copyright in the sound or video recording, broadcast or cable programme and in any literary, dramatic, musical, or artistic embodied therein.**
- The recording level is automatically set correctly, so it is not affected by the VOLUME control. Thus, during recording you can adjust the sound you are actually listening to without affecting the recording level.
- While recording, you can hear sound modes and/or the Signal Adaptive Bass effect through the speakers or headphones. However, the sound is recorded without these effects (see page 10).
- If recordings you have made have excessive noise or static, the unit may be too close to a TV. Increase the distance between the TV and the unit.
- You can use type I and II tapes for recording.

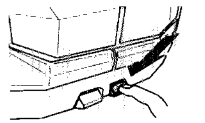
To protect your recording

Cassettes have two small tabs on the back to protect unexpected erasure or re-recording.
To protect your recording, remove these tabs.
To re-record on a protected tape, cover the holes with adhesive tape.
When using type II tape, be careful not to cover the holes used to detect the tape type.



Recording Tapes on Deck B

1 Press EJECT ≜ for the deck B.



2 Put in a recordable cassette, with the exposed part of the tape down.

3 Close the cassette holder gently.

4 Check the tape direction of deck B.

- If the tape direction is not correct, press TAPE ◄ ► twice then ■ to change the tape direction.

5 Start playing the source — FM, AM*, CD player, deck A, or auxiliary equipment connected to AUX jacks.

- When the source is CD, you can also use CD Direct Recording (see page 18) and Auto Edit Recording (see page 19).
- When the source is deck A, you can also use the dubbing method. (See "Dubbing Tapes" on page 18.)

* See "To record an AM station – Beat Cut" on page 18.

6 Start recording.

On the unit:

Press REC START/STOP.

REC START/STOP

The REC indicator lights up on the display and recording starts.

On the remote control:

1) Press REC PAUSE.
   The REC indicator starts flashing on the display.

2) Press TAPE ◄ ►.
   The REC indicator stops flashing and remains lit, and recording starts.

To stop during recording, press REC START/STOP again or (■ on the remote control).

Continued

To stop recording temporarily (except when the playback source is deck A), press REC PAUSE on the remote control.
To resume recording, press TAPE ◄ ►.

To remove the cassette, press EJECT ▲ for deck B.

To record on both sides — Reverse Mode

REVERSE MODE

Press REVERSE MODE so that the Reverse Mode indicator lights up as — (⇅)

- When using the Reverse Mode for recording, start recording in the forward (►) direction first. Otherwise, recording will stop when recording is done only on one side (reverse) of the tape.

To cancel Reverse Mode, press the button again so that the Reverse Mode indicator lights up as — ⇄

To record an AM station — Beat Cut

While recording an AM broadcast, beats may be heard (which are never heard when listening to the broadcast without recording it).
If this occurs, press PROGRAM/RANDOM repeatedly, while recording, until the beats are reduced.

PROGRAM /RANDOM

- Each time you press the button, the display changes to show the following:

┌→CUT1 → CUT2 → CUT3┐

Dubbing Tapes

It is preferable that the tape type (type I or II) you record from be the same as the tape type you record onto when dubbing tapes.

1 Press TAPE ◄ ►, then ■.

2 Put the source cassette in deck A, and a recordable cassette into deck B.

- Put the cassettes in both decks so that the tapes will run in the forward (►) direction.

3 Press DUBBING.

Dubbing starts.

To stop during dubbing, press ■.

To remove the cassette, press ▲ EJECT for deck A and EJECT ▲ for deck B.

To record on both sides — Reverse Mode

Press REVERSE MODE so that the Reverse Mode indicator lights up as — (⇅)

To cancel Reverse Mode, press the button again so that the Reverse Mode indicator lights up as — ⇄

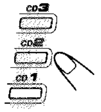
CD Direct Recording

Everything on the CD goes onto the tape in the order it is on the CD, or according to the order you have made for Program play.

1 Put a recordable cassette into deck B.

2 Place a disc correctly on the circle of the disc tray, with its label side up.

3 Press one of the disc number buttons (CD 1 to CD 3) to select the disc, then ■.



4 Press CD REC START.

CD REC START

"CD REC" appears, and the REC indicator lights up on the display.
Deck B starts recording and the CD player starts playing.
When the recording is done, "CD REC FINISHED" appears on the display, and the CD player and deck B stop.

To stop during CD Direct Recording, press ■.

To remove the cassette, press EJECT ▲ for deck B.

To record on both sides — Reverse Mode

Press REVERSE MODE so that the Reverse Mode indicator lights up as — (⇅)

- When using the Reverse Mode for CD Direct Recording, start recording in the forward (►) direction first. When the tape reaches its end while recording a song in the forward direction (►), the last song will be recorded at the beginning of the reverse side (◄).
  If you start recording on the reverse side (◄), recording will stop when recording is done only on one side (reverse) of the tape.

To cancel Reverse Mode, press the button again so that the Reverse Mode indicator lights up as — ⇄

Auto Edit Recording

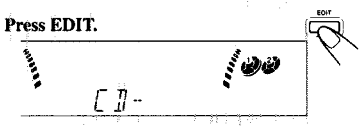
By using Auto Edit Recording, you can record the CD tracks to fit the tape. Auto Edit Recording makes a program by selecting the CD tracks in numerical order. However, to prevent the end of the last track on the front side from being cut off, the last track is selected so as to fit on the remaining tape length.

On the unit ONLY:

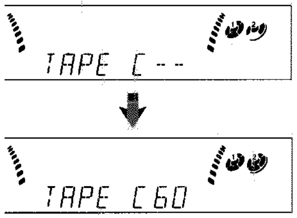
1 Place a disc correctly on the circle of the disc tray, with its label side up.

- If the current playing source is not the CD player, press CD ►/II, then ■ before going to the next step.

2 Press EDIT.



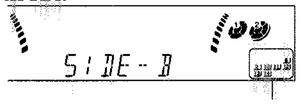
3 Press the disc number button (CD 1 to CD 3) for the disc you want to record from.



The optimum tape length for the disc appears.

To change the tape length manually
If the tape length selected is not satisfactory, you can change the tape length by pressing I◄◄ or ►►I.
You can select the tape length among the following — 40, 46, 50, 54, 60, 64, 70, 74, 80, 84, and 90.

4 Press SET.



Tracks to be recorded on the reverse side (SIDE-B) appear.

- Each time you press the button, the tracks to be recorded on the front side (SIDE-A) and on the reverse side (SIDE-B) alternate.

5 Put a recordable cassette of appropriate length into deck B.

6 Press REVERSE MODE so that the Reverse Mode indicator lights up as (⇅).

- Without turning on the Reverse Mode ((⇅)), recording will stop when the front side of the tape is recorded.

7 Press CD REC START.

The REC indicator lights up on the display.
Deck B starts recording then, about 10 second later, the CD player starts playing.
When the recording is done, "CD REC FINISHED" appears on the display, and the CD player and deck B stop.

- If a tape has not been rewound, deck B will rewind the tape before it starts recording.
- A 10-second blank portion is automatically created at the beginning of each side of the tape.

To stop during Auto Edit Recording;

- Press ■ so that a 4-second blank portion is created on the recorded tape. (Remember a 4-second blank is important when using Music Scan – see page 16.)
  OR
- Press REC START/STOP. No 4-second blank portion is created on the recorded tape.

To cancel Auto Edit Recording;

- Press PROGRAM/RANDOM before or after play. (The unit enters Program, Random, or Continuous Play mode.)
  OR
- Press ▲ for the disc you have selected.

To remove the cassette, press EJECT ▲ for deck B.

Using the Timers

Continued

There are three timers available — Recording Timer, Daily Timer, and Sleep Timer.

Before using the timers, you need to set the clock built in the unit. (See page 9.)

Using Daily Timer

With Daily Timer, you can wake to your favorite music or radio program.

How Daily Timer actually works

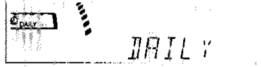
The unit automatically turns on, set the volume level to the preset level, and starts playing the specified source when the on-time comes (the ⊕ indicator flashes just before the on-time, and continues flashing while the timer is operating). Then, when the off-time comes ("OFF" flashes just before the off-time), the unit automatically turns off (stands by).

The timer setting remains in memory until you change it.

- There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.
- If you have made a mistake while setting timer, press CANCEL. (However, this does not always work. If CANCEL does not work, press TIMER/CLOCK repeatedly and start from step 1 again.)

On the unit ONLY:

1 Press TIMER/CLOCK until "DAILY" appears on the display.



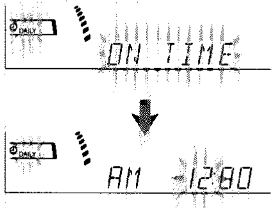
The DAILY indicator also starts flashing on the display.

- Each time you press the button, the timer setting modes change as follows:

DAILY → ON TIME → REC
Canceled ← Clock ← ON TIME
setting
(See page 9.)

2 Press TIMER/CLOCK again.

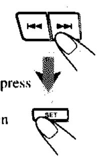
"ON TIME" appears for 2 seconds, then the unit enters on-time setting mode.



3 Set the on-time you want the unit to turn on.

1) Press ⏮ or ⏭ to set the hour, then press SET.
2) Press ⏮ or ⏭ to set the minute, then press SET.

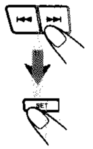
"OFF TIME" appears for 2 seconds, then the unit enters off-time setting mode.

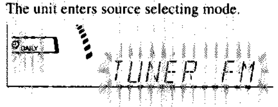


4 Set the off-time you want the unit to turn off (on standby).

1) Press ⏮ or ⏭ to set the hour, then press SET.
2) Press ⏮ or ⏭ to set the minute, then press SET.

The unit enters source selecting mode.

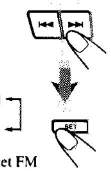




5 Press ⏮ or ⏭ to select the source to play, then press SET.

- Each time you press ⏮ or ⏭, the source changes as follows:

TUNER FM ← TUNER AM
AUX ← TAPE ← – CD – – –



TUNER FM: tunes into a specified preset FM station. → go to step 6.

TUNER AM: tunes into a specified preset AM station. → go to step 6.

– CD – – –: plays a disc from a specified track of a specified disc. → go to step 6.
- Make sure there is a CD on the selected disc number tray.

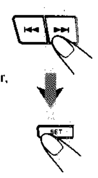
TAPE: plays a tape in deck A or B. → go to step 7.
- Make sure that a tape is in the deck whose deck indicator (A or B) is lit on the display.
- Make sure that the tape direction is correct.

AUX: plays an external source. → go to step 7.
- To use this setting, the external component has to be equipped with the timer function.

6 When selecting "– CD – – –"

1) Press ⏮ or ⏭ to select the disc number, then press SET.
2) Press ⏮ or ⏭ to set the track number, then press SET.

The unit enters volume setting mode.



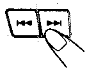
When selecting "TUNER FM" or "TUNER AM"

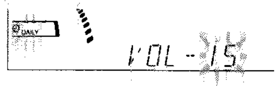
Press ⏮ or ⏭ to select the preset station number, then press SET.

The unit enters volume setting mode.

7 Press ⏮ or ⏭ to set the volume level.

- You can select the volume level from among four levels. If you select "VOL – – –," the volume is set to the last level when the unit has been turned off.

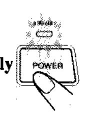




8 Press SET to complete the Daily Timer setting.

The DAILY indicator stops flashing and remains lit. The settings you have done are shown on the display in sequence.

9 Press POWER to turn off the unit (on standby) if you have set the Daily Timer with the unit turned on.



To turn on or off Daily Timer after its setting is done

1 **Press TIMER/CLOCK repeatedly until "DAILY" appears on the display.**

2 **To turn off the Daily Timer, press CANCEL.**
The DAILY indicator goes off from the display. The Daily Timer is canceled, but the setting for the Daily Timer remains in memory.

To turn on the Daily Timer, press SET.
The DAILY indicator lights up on the display. The settings you have done are shown on the display in sequence for your confirmation.

If the unit is turned on when the timer-on time comes Daily Timer does not work.

Using Recording Timer

With Recording Timer, you can make a tape of a radio broadcast automatically.

How Recording Timer actually works

The unit automatically turns on, tunes into the specified station, sets the volume level to "0," and starts recording when the on-time comes (the ⊕ indicator flashes just before the on-time, and continues flashing while the timer is operating). Then, when the off-time comes ("OFF" appears just before the off-time), the unit automatically turns off (stands by).

The timer setting remains in memory until you change it.

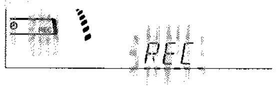
- There is a time limit in doing the following steps. If the setting is canceled before you finish, start from step 1 again.
- If you have made a mistake while setting the timer, press CANCEL. (However, this does not always work. If CANCEL does not work, press TIMER/CLOCK repeatedly and start from step 1 again.)

On the unit ONLY:

1 Put a recordable cassette into deck B.

2 Press TIMER/CLOCK until "REC" appears on the display.

The REC indicator also starts flashing on the display.

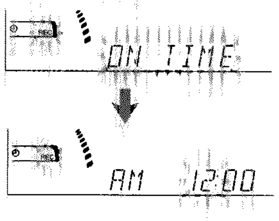


- Each time you press the button, the timer setting modes change as follows:

DAILY → ON TIME → REC
Canceled ← Clock ← ON TIME
setting
(See page 9.)

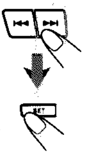
3 Press TIMER/CLOCK again.

"ON TIME" appears for 2 seconds, then the unit enters on-time setting mode.



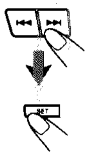
4 **Set the on-time you want the unit to turn on.**

1) Press ◀◀ or ▶▶ to set the hour, then press SET.
2) Press ◀◀ or ▶▶ to set the minute, then press SET.
"OFF TIME" appears for 2 seconds, then the unit enters off-time setting mode.



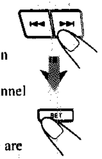
5 **Set the off-time you want the unit to turn off (on standby).**

1) Press ◀◀ or ▶▶ to set the hour, then press SET.
2) Press ◀◀ or ▶▶ to set the minute, then press SET.
The unit enters preset station selecting mode.

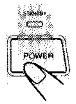


6 **Select the preset station.**

1) Press ◀◀ or ▶▶ to select the band ("TUNER FM" or "TUNER AM"), then press SET.
2) Press ◀◀ or ▶▶ to select a preset channel number, then press SET.
The REC indicator stops flashing and remains lit. The settings you have done are shown on the display in sequence.



7 **Press POWER to turn off the unit (on standby) if necessary.**



If you want to listen to another source while recording.

Press REC START/STOP to stop recording. Without stopping it, you cannot change the source.

To turn on or off Recording Timer after its setting is done

1 **Press TIMER/CLOCK repeatedly until "REC" appears on the display.**

TIMER
/CLOCK

2 **To turn off the Recording Timer, press CANCEL.**
The REC indicator goes off from the display. The Recording Timer is canceled, but the setting for the Recording Timer remains in memory.

To turn on the Recording Timer, press SET.
The REC indicator lights up on the display. The settings you have done are shown on the display in sequence for your confirmation.

Using Sleep Timer

With Sleep Timer, you can fall asleep to music.
You can set Sleep Timer when the unit is turned on.

How Sleep Timer actually works

The unit automatically turns off after the specified time length passes.

On the remote control ONLY:

1 **Press SLEEP.**

The time length until the shut-off time appears and the SLEEP indicator starts flashing on the display.

- Each time you press the button, the time length changes as follows:

→10→20→30→60→90→120
——— Canceled ←———

2 **Wait for about 5 seconds after specifying the time length.**

The SLEEP indicator stops flashing and remains lit.

To check the remaining time until the shut-off time, press SLEEP once so that the remaining time until the shut-off time appears for about 5 seconds.

To change the shut-off time, press SLEEP repeatedly until the desired time length appears on the display.

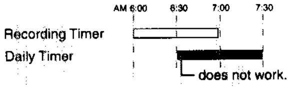
To cancel the setting, press SLEEP repeatedly so that the SLEEP indicator goes off.

- Sleep Timer is also canceled when you turn off the unit.

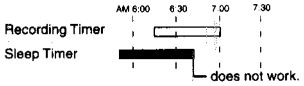
Timer Priority

Since each timer can be set separately, you may wonder what happens if the setting for these timers overlaps.
Here are examples.

- **Recording Timer has priority over Daily Timer and Sleep Timer.**
If Daily Timer is set to come on while Recording Timer is operating, Daily Timer will not come on at all.



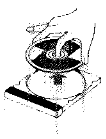
If Recording Timer is set to come on while Sleep Timer is operating, Sleep Timer will not work (the SLEEP indicator does not go off).



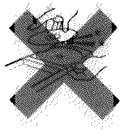
Maintenance

To get the best performance of the unit, keep your discs, tapes, and mechanism clean.

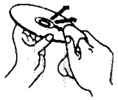
Handling discs



- Remove the disc from its case by holding it at the edge while pressing the center hole lightly.
- Do not touch the shiny surface of the disc, or bend the disc.
- Put the disc back in its case after use to prevent warping.



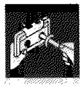
- Be careful not to scratch the surface of the disc when placing it back in its case.
- Avoid exposure to direct sunlight, temperature extremes, and moisture.



To clean the disc
Wipe the disc with a soft cloth in a straight line from center to edge.

DO NOT use any solvent — such as conventional record cleaner, spray, thinner, or benzine — to clean the disc.

Handling cassette tapes



- If the tape is loose in its cassette, take up the slack by inserting a pencil in one of the reels and rotating.
- If the tape is loose, it may get stretched, cut, or caught in the cassette.

- Be careful not to touch the tape surface.

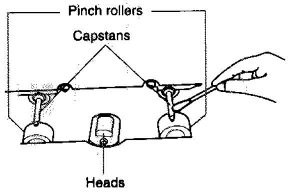
- Avoid the following places to store the tape:
— In dusty places
— In direct sunlight or heat
— In moist areas
— Near a magnet

Cassette decks

If the heads, capstans, and pinch rollers of the cassette decks become dirty, the following will occur:

- Impaired sound quality
- Discontinuous sound
- Fading
- Incomplete erasure
- Difficulty in recording

To clean the heads, capstans, and pinch rollers
Use a cotton swab moistened with alcohol.



To demagnetize the heads
Turn off the unit, and use a head demagnetizer (available at electronics and record shops).

Troubleshooting

If you are having a problem with your unit, check this list for a possible solution before calling for service.
If you cannot solve the problem from the hints given here, or the unit has been physically damaged, call a qualified person, such as your dealer, for service.

Symptom	Cause	Action
No sound is heard.	Connections are incorrect or loose.	Check all connections and make corrections. (See pages 6 to 8.)
Hard to listen to broadcasts because of noise.	• Antennas are disconnected. • The AM loop antenna is too close to the unit. • The FM antenna is not properly extended and positioned.	• Reconnect the antennas correctly and securely. • Change the position and direction of the AM loop antenna. • Extend the FM antenna at the best position.
The disc sound is discontinuous.	The disc is scratched or dirty.	Clean or replace the disc. (See page 23.)
The disc tray does not open or close.	• The AC power cord is not plugged in. • Trays are locked.	• Plug the AC power cord. • Unlock the trays. (See page 15.)
The disc does not play.	The disc is placed upside down.	Place the disc with the label side up.
The cassette holders cannot be opened.	Power supply from the AC power cord has been cut off while the tape was running.	Turn on the unit.
Impossible to record.	Small tabs on the back of the cassette are removed.	Cover the holes with adhesive tape.
Operations are disabled.	The built-in microprocessor may malfunction due to external electrical interference.	Unplug the AC power cord and then plug it back in.
Unable to operate the unit from the remote control unit.	• The path between the remote control unit and the remote sensor on the unit is blocked. • The batteries are exhausted.	• Remove the obstruction. • Replace the batteries.

Specifications

Design and specifications are subject to change without notice.

Amplifier section — CA-MXJ50

Output Power

120 watts per channel, min. RMS, driven into 6 ohms at 1 kHz with no more than 10% total harmonic distortion.

Audio input sensitivity/Impedance (at 1 kHz)
AUX: 520 mV/50 kohms

Digital output: CD OPTICAL DIGITAL OUTPUT
Signal wave length: 660 nm
Output level: –21 to –15 dBm

Speakers/Impedance: 6 – 16 ohms

Tuner

FM tuning range: 87.5 – 108.0 MHz
AM tuning range: 530 – 1,710 kHz

CD player

CD Capacity: 3 CDs
Dynamic range: 85 dB
Signal-to-noise ratio: 90 dB
Wow and flutter: Immeasurable

Cassette deck

Frequency response
Normal (type I): 50 — 14,000 Hz
CrO_2 (type II): 50 — 14,000 Hz
Metal (type IV): 50 — 14,000 Hz (only for playback)
Wow and flutter
0.15% (WRMS)

General

Power requirement: AC 120 V∿, 60 Hz
Power consumption: 100 watts / 130 VA (at operation)
14 watts (on standby)
Dimensions (approx.): 265 x 315 x 341 mm (W/H/D)
(10 7/16 x 12 7/16 x 13 7/16 in.)
Mass (approx.): 9.4 kg (20.7 lbs)

Supplied accessories

See page 6.

Speaker section — SP-MXJ50

Type: 4-way bass-reflex type
Labyrinth Aeroport System
Speaker units: Woofer: 16 cm (6 5/16") cone x1
Midrange: 5 cm (2") cone x1
Tweeter: 4 cm (1 5/8") cone x1
Super tweeter: 2 cm (11/16") dome x1
Power handling capacity: 120 watts
Impedance: 6 ohms
Frequency range: 40 Hz — 28,000 Hz
Sound pressure level: 87 dB/W•m
Dimensions (approx.): 215 x 315 x 273 mm (W/H/D)
(8 1/2 x 12 7/16 x 10 3/4 in.)
Mass (approx.): 3.9 kg (8.6 lbs) each

QUALITY **JVC** SERVICE

HOW TO LOCATE YOUR JVC SERVICE CENTER

TOLL FREE : 1-800-537-5722
http://www.jvcservice.com

Dear customer:
In order to receive the most satisfaction from your purchase, read the instruction booklet before operating the unit. In the event that repair is necessary, or for the address nearest your location, please refer to the factory service center list below or within the Continental United States, Call 1-800-537-5722 for your authorized servicer. Remember to retain your Bill of Sale for Warranty Service.

—JVC

JVC SERVICE & ENGINEERING
COMPANY OF AMERICA
DIVISION OF JVC AMERICAS CORP.

FACTORY SERVICE CENTER LOCATIONS

107 Little Falls Road
Fairfield, NJ 07004-2105
(973) 808-9279

5665 Corporate Avenue
Cypress, CA 90630-0024
(714) 229-8011

13 Cummings Park
Woburn, MA 01801
(781) 376-9100

1500 Lakes Parkway
Lawrenceville, GA 30243-5857
(770) 339-2522

2969 Mapunapuna Place
Honolulu, HI 96819-2040
(808) 833-5828

8192 State Road 84
Davie, FL 33324
(954) 472-1960

705 Enterprise Street
Aurora, IL 60504-8149
(630) 851-7855

10700 Hammerly, Suite 110
Houston, TX 77043
(713) 935-9331

890 Dubuque Avenue
South San Francisco, CA 94080-1804
(650) 871-2666

Sophisticated electronic products may require occasional service. Just as quality is a keyword in the engineering and production of the wide array of JVC products, service is the key to maintaining the high level of performance for which JVC is world famous. The JVC service and engineering organization stands behind our products.

NATIONAL HEADQUARTERS
JVC SERVICE & ENGINEERING COMPANY OF AMERICA
DIVISION OF JVC AMERICAS CORP.
1700 Valley Road
Wayne, NJ 07470

If you ship the product • • •

Pack your JVC unit in the original carton or one of equivalent size and strength. Enclose, with the unit, a letter stating the problem or symptom that exists and also a copy of the receipt or bill of sale you received when you purchased your JVC unit. Print your home return address on the outside and the inside of the carton. Send to the appropriate JVC Factory Service Center as listed above.

Don't service it yourself.

CAUTION

To prevent electrical shock, do not open the cabinet. No user serviceable parts inside.
Refer servicing to qualified service personnel.

ACCESSORIES

To purchase accessories for your JVC product, you may contact your local JVC Dealer.
Or from the 48 Continental United States call toll free : 800-882-2345

(1098)

JVC LIMITED WARRANTY AUDIO-1

JVC COMPANY OF AMERICA warrants this product and all parts thereof, except as set forth below ONLY TO THE ORIGINAL PURCHASER AT RETAIL to be FREE FROM DEFECTIVE MATERIAL AND WORKMANSHIP from the date of original retail purchase for the period as shown below. ("The Warranty Period.")

PARTS	LABOR
1YR	1YR

THIS LIMITED WARRANTY IS VALID ONLY IN THE FIFTY(50) UNITED STATES, THE DISTRICT OF COLUMBIA AND IN COMMONWEALTH OF PUERTO RICO.

WHAT WE WILL DO:

If this product is found to be defective, JVC will repair or replace defective parts at no charge to the original owner. Such repair and replacement services shall be rendered by JVC during normal business hours at JVC authorized service centers. Parts used for replacement are warranted only for the remainder of the Warranty Period. All products and parts thereof may be brought to a JVC authorized service center on a carry-in basis except for Television sets having a screen size 25 inches and above which are covered on an in-home basis.

WHAT YOU MUST DO FOR WARRANTY SERVICE:

Return your product to a JVC authorized service center with a copy of your bill of sale. For your nearest JVC authorized service center, please call toll free: (800)537-5722.

If service is not available locally, box the product carefully, preferably in the original carton, and ship, insured, with a copy of your bill of sale plus and letter of explanation of the problem to the nearest JVC Factory Service Center, the name and location of which will be given to you by the toll-free number.

If you have any questions concerning your JVC Product, please contact our Customer Relations Department.

WHAT IS NOT COVERED:

This limited warranty provided by JVC does not cover:

1. Products which have been subject to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, or if repaired or serviced by anyone other than a service facility authorized by JVC to render such service, or if affixed to any attachment not provided with the products, or if the model or serial number has been altered, tampered with, defaced or removed;

2. Initial installation and installation and removal for repair;

3. Operational adjustments covered in the Owner's Manual, normal maintenance, video and audio head cleaning;

4. Damage that occurs in shipment, due to act of God, and cosmetic damage;

5. Signal reception problems and failures due to line power surge;

6. Video Pick-up Tubes/CCD Image Sensor, Cartridge, Stylus(Needle) are covered for 90 days from the date of purchase;

7. Accessories;

8. Batteries (except the Rechargeable Batteries are covered for 90 days from the date of purchase);

There are no express warranties except as listed above.

THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY, IS LIMITED TO THE DURATION OF THE EXPRESS WARRANTY HEREIN.

JVC SHALL NOT BE LIABLE FOR THE LOSS OF USE OF THE PRODUCT, INCONVENIENCE, LOSS OR ANY OTHER DAMAGES, WHETHER DIRECT, INCIDENTAL OR CONSEQUENTIAL (INCLUDING, WITHOUT LIMITATION, DAMAGE TO TAPES, RECORDS OR DISCS) RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY. ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE LIMITED TO THE WARRANTY PERIOD SET FORTH ABOVE.

Some states do not allow the exclusion of incidental or consequential damages or limitations on how long an implied warranty last, so these limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

JVC COMPANY OF AMERICA
DIVISION OF JVC AMERICAS CORP.

1700 Valley Road
Wayne, NJ 07470

REFURBISHED PRODUCTS CARRY A SEPARATE WARRANTY, THIS WARRANTY DOES NOT APPLY. FOR DETAILS OF REFURBISHED PRO DUCT WARRANTY, PLEASE REFER TO THE REFURBISHED PRODUCT WARRANTY INFORMATION PACKAGED WITH EACH REFURBISHED PRODUCT.

For customer use:

Enter below the Model No. and Serial No. which is located either on the rear, bottom or side of the cabinet. Retain this information for future reference.

Model No.: ____________________
Serial No.: ____________________
Purchase date: ____________________
Name of dealer: ____________________

JVC
VICTOR COMPANY OF JAPAN, LIMITED

EN

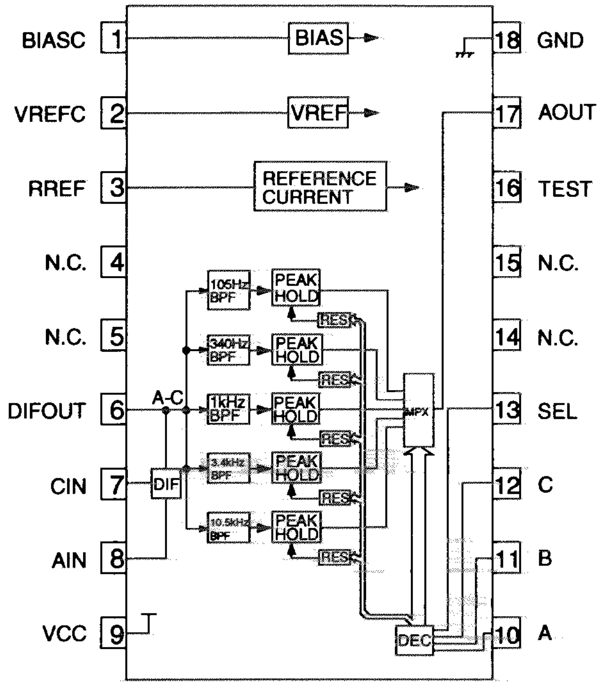
0199MWMMDWJEM

<<MEMO>>

Description of Major ICs

■ BA3835S (IC542):SPI BPF

1.Block Diagrams

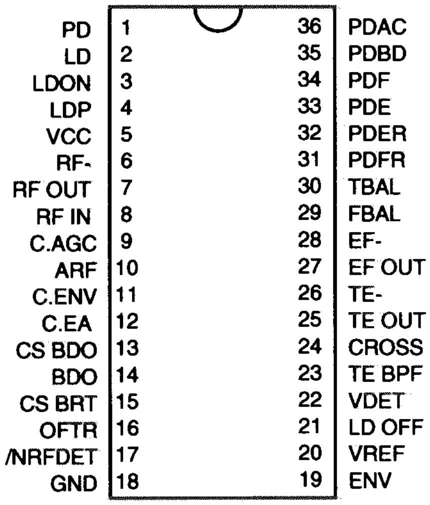

BIASC 1
VREFC 2
RREF 3
N.C. 4
N.C. 5
DIFOUT 6
CIN 7
AIN 8
VCC 9
18 GND
17 AOUT
16 TEST
15 N.C.
14 N.C.
13 SEL
12 C
11 B
10 A
BIAS
VREF
REFERENCE CURRENT
105Hz BPF
340Hz BPF
1kHz BPF
3.4kHz BPF
10.5kHz BPF
PEAK HOLD
RES
A-C
DIF
MPX
DEC

2.Pin Function

No.	Symbol	I/O	Function
1	BIASC	-	Decoupling condenser connection terminal.
2	VREFC	-	Decoupling condenser connection terminal.
3	RREF	-	Reference resistance connection terminal.
4	NC	-	Non connect.
5	NC	-	Connected to GND of audio system through a condenser.
6	DIF OUT	-	Non connect.
7	CIN	-	Connected to GND of audio system through a condenser.
8	AIN	I	Inputs the audio signal through a condenser.
9	VCC	-	Power supply terminal.
10	SPI-A	O	Output selection control terminal.
11	SPI-B	O	Output selection control terminal.
12	SPI-C	O	Output selection control terminal.
13	SPICSB	O	Output selection control terminal.
14	NC	-	Non connect.
15	NC	-	Non connect.
16	TEST	-	Connected to GND upon normal use.
17	AOUT	O	Multi-plexor output terminal.
18	GND	-	Connect to GND.

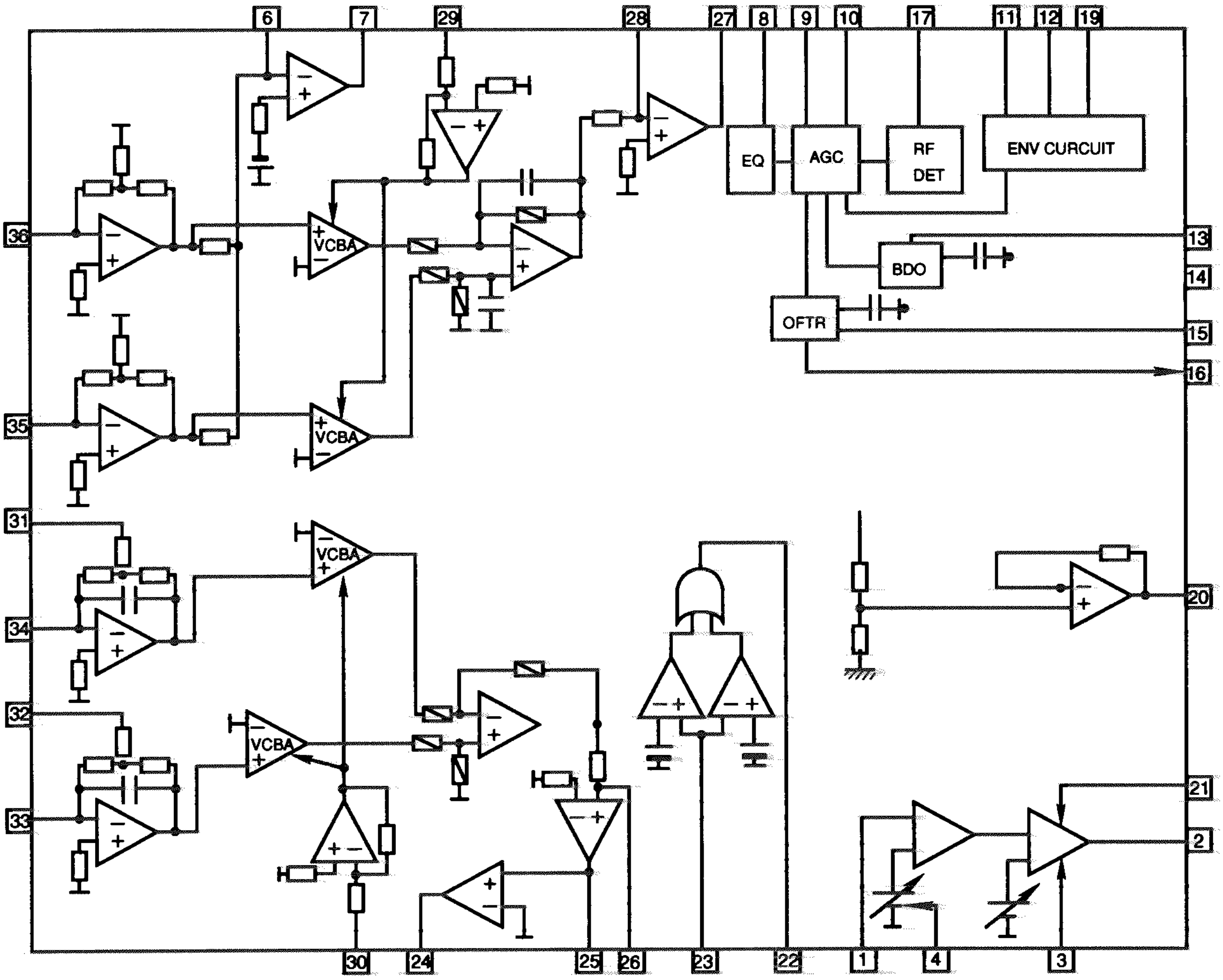
■ AN8806SB(IC601):RF&Servo AMP

1.Terminal Layout



Name	Pin	Pin	Name
PD	1	36	PDAC
LD	2	35	PDBD
LDON	3	34	PDF
LDP	4	33	PDE
VCC	5	32	PDER
RF-	6	31	PDFR
RF OUT	7	30	TBAL
RF IN	8	29	FBAL
C.AGC	9	28	EF-
ARF	10	27	EF OUT
C.ENV	11	26	TE-
C.EA	12	25	TE OUT
CS BDO	13	24	CROSS
BDO	14	23	TE BPF
CS BRT	15	22	VDET
OFTR	16	21	LD OFF
/NRFDET	17	20	VREF
GND	18	19	ENV

2.Block Diagram


6
7
29
28
27
8
9
10
17
11
12
19
EQ
AGC
RF DET
ENV CURCUIT
BDO
OFTR
VCBA
VCBA
VCBA
VCBA
36
35
31
34
32
33
13
14
15
16
20
21
2
30
24
25
26
23
22
1
4
3

3. Functions

Pin No.	Symbol	I/O	Functions and operations
1	PD	I	APC amp input terminal
2	LD	O	APC amp output terminal
3	LD ON	I	APC ON/OFF control terminal
4	LDP	--	Connect to ground
5	VCC	--	Power supply
6	RF-	I	Inverse input pin for RF amp
7	RF OUT	O	RFamp output
8	RF IN	I	RF input
9	C.AGC	I/O	Connecting pin of AGC loop filter
10	ARF	O	RF output
11	C.ENV	I/O	A capacitor is connected to this terminal to detect the envelope of RF signal
12	C.EA	I/O	A capacitor is connected to this terminal to detect the envelope of RF signal
13	CS BDO	I/O	A capacitor is connected to detect the lower envelope of RF signal
14	BDO	O	BDO output pin
15	CS BRT	I/O	A capacitor is connected to detect the lower envelope of RF signal
16	OFTR	O	Of-track status signal output
17	/NRFDET	O	RF detection signal output
18	GND	--	Ground
19	ENV	O	Envelope output
20	VREF	O	Reference voltage output
21	LD OFF	--	Connect to ground
22	VDET	O	Vibration detection signal output
23	TE BPF	I	Input pin of tracking error through BPF
24	CROSS	O	Tracking error cross output
25	TE OUT	O	Tracking error signal output
26	TE-	I	Inverse input pin for tracking error amp
27	FE OUT	O	Output pin of focus error
28	FE-	I	Inverse input pin for focus error amp
29	FBAL	I	Focus balance control
30	TBAL	I	Tracking balance control
31	PDFR	I/O	F I-V amp gain control
32	PDER	I/O	E I-V amp gain control
33	PDF	I	I-V amp input
34	PDE	I	I-V amp input
35	PD BD	I	I-V amp input
36	PD AC	I	I-V amp input

■ MN101C23DBP3 (IC810) : System controller

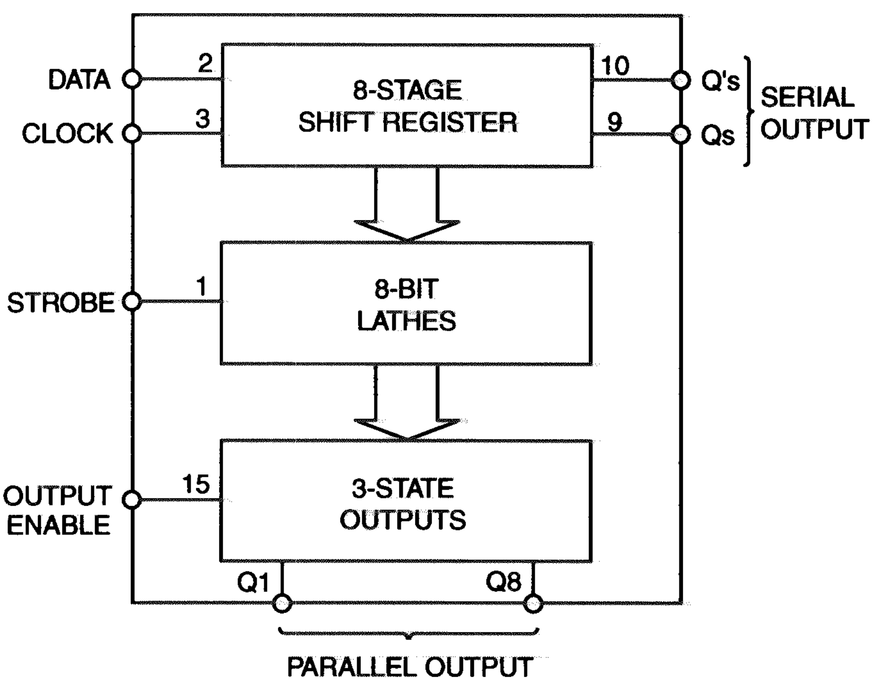
Pin No.	Symbol	I/O	Descriptions
1	KCMND	O	VC3 Serial data output
2	MSTAT	I	VC3 Status data input
3	KCLK	I	VC3 Serial clock input
4	DATAOUT	O	SLC/TUNER data output
5	DATAIN	I	SLC/TUNER data input
6	CK	O	SLC/TUNER clock signal output
7	BEAT	O	BEAT Cut signal output of TUNER
8	VDD	-	Power supply +5V
9,10	OSC2,1	I/O	Oscillation terminal (8MHz)
11	VSS	-	Connect to GND
12,13	XI,XO	I/O	Sub clock (32.768kHz)
14	MMOD	-	Connect to GND
15	VREF-	-	Connect to GND
16~19	KEY1~4	I	Key matrix input 1~4
20	SLCKEY1	I	Tape A playback detect switch
21	SLCKEY2	I	Tape B playback detect switch
22	SLCKEY3	I	Tape B playback/recording detect switch
23	SPIDTI	I	SPI data input
24	VREF+	-	Power supply +5V
25	MRDY	I	VC3 ready input
26	RESET	I	Reset signal input
27	PANEL OP	I	Moving panel open detection signal input
28	PANEL CL	I	Moving panel close detection signal input
29	LOAD DET	I	Overload detect signal input
30	MSI	I	MS Detector signal input
31	PROSACK	O	Clock signal output to IC406
32	PROSADA	I	Data input from IC406
33	REMIN	I	Remote control signal input
34	PHOTOA	I	Tape A mechanism running detection signal input
35	PHOTOB	I	Tape B mechanism running detection signal input
36	INH	I	Inhibit signal input
37	RDSCLK	I	Clock signal input from IC4
38	PRT	I	Protector input
39	RDS DATA	I	RDS data input from IC4
40	SPICSB	O	SPI Chip select signal output
41	OSDCLK	-	Not used
42~44	SPIC~A	O	SPI-C~A Data output to IC542
45,46	VOL+/-	I	Volume rotary encoder input (+/-)
47	MPX	I	Stereo detect
48	FVOLDA	O	Front volume data output
49	SLCCE	O	SLC Chip enable signal output to IC303,IC304
50	RVOLDA	O	Rear volume data output
51~59	G9~1	O	FL grid control signal output
60~89	P1~30	O	FL segment control signal output
90	SABCE	O	SA BASS Chip enable signal output
91	PROCE	O	ProLogic Chip enable signal output
92	DSPCE	O	DSP Chip enable signal output
93	EXTCE	O	EXT Chip enable signal output
94	VOLCK	O	Clock signal output to IC401
95	SMUTE	O	System mute control signal output
96	OSDCE	-	Not used
97	POUT	O	Power ON/OFF
98	TUCE	O	TUNER Chip enable signal output
99	VC3RESET	O	VC3 Reset output
100	VPP	-	Power supply

■ BU4094BCF(IC304,IC303):SERIAL TO PARALLEL PROT EXTENSION

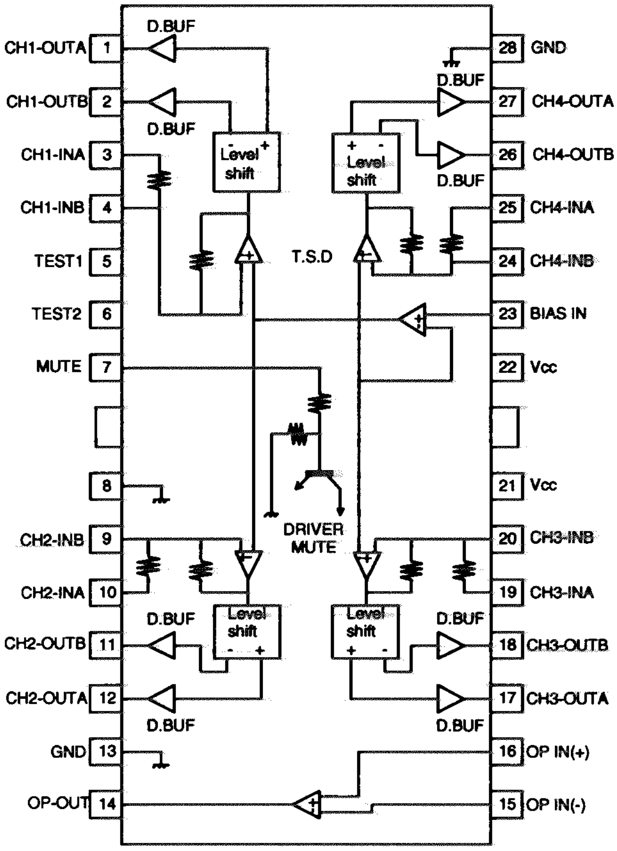
1.Terminal Layout

STOROBE	1	16	Vdd
DATA	2	15	OUTPUT ENABLE
CLOCK	3	14	Q5
Q1	4	13	Q6
Q2	5	12	Q7
Q3	6	11	Q8
Q4	7	10	Q's
Vss	8	9	Qs

2.Block Diagram

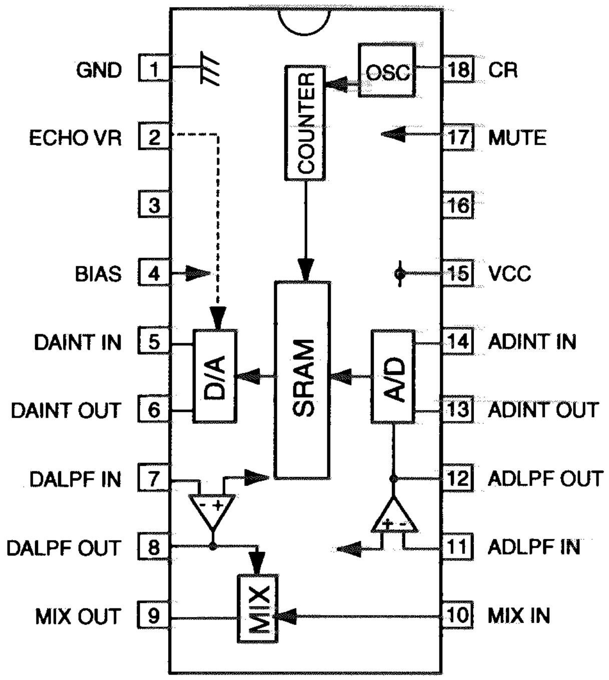

DATA
2
CLOCK
3
8-STAGE
SHIFT REGISTER
10
9
Q's
Qs
SERIAL
OUTPUT
STROBE
1
8-BIT
LATHES
OUTPUT
ENABLE
15
3-STATE
OUTPUTS
Q1
Q8
PARALLEL OUTPUT

■ BA6897FP(IC801):4channel driver


CH1-OUTA 1
CH1-OUTB 2
CH1-INA 3
CH1-INB 4
TEST1 5
TEST2 6
MUTE 7
8
CH2-INB 9
CH2-INA 10
CH2-OUTB 11
CH2-OUTA 12
GND 13
OP-OUT 14
28 GND
27 CH4-OUTA
26 CH4-OUTB
25 CH4-INA
24 CH4-INB
23 BIAS IN
22 Vcc
21 Vcc
20 CH3-INB
19 CH3-INA
18 CH3-OUTB
17 CH3-OUTA
16 OP IN(+)
15 OP IN(-)
D.BUF
Level shift
T.S.D
DRIVER MUTE

■ BU9253AS(IC902) : LPF&ECHO MIX.

1.Terminal Layout

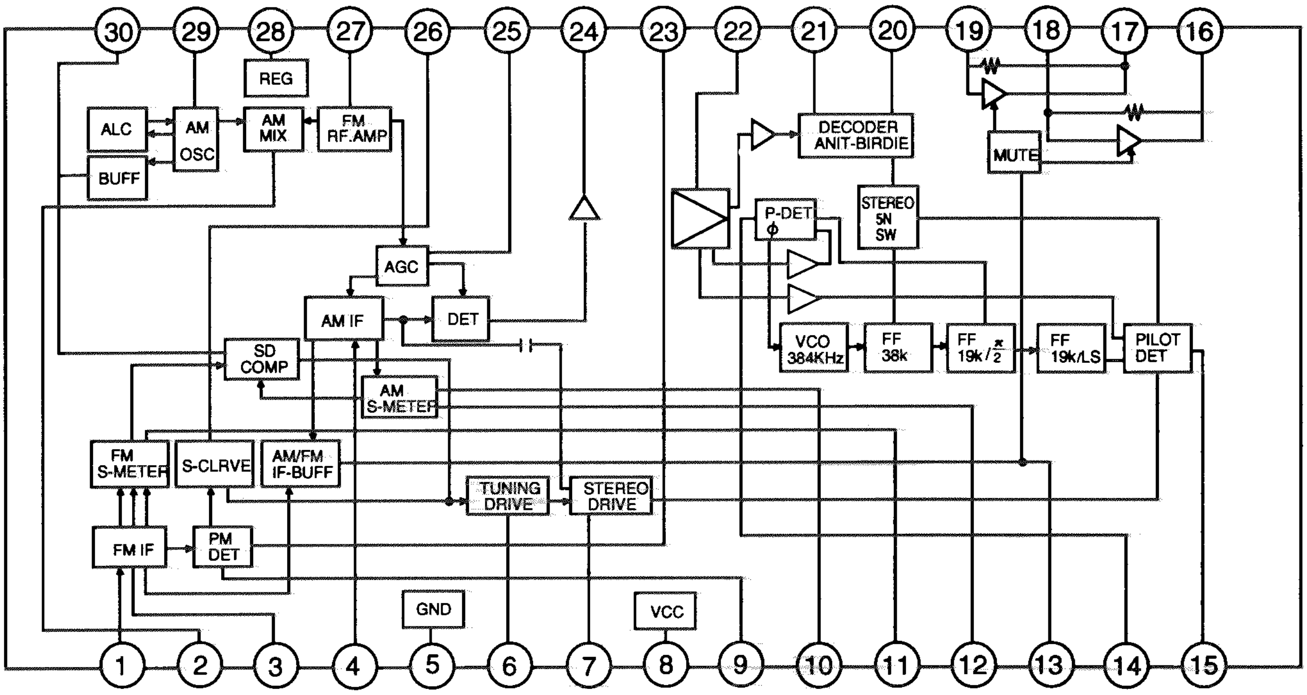

GND 1
ECHO VR 2
3
BIAS 4
DAINT IN 5
DAINT OUT 6
DALPF IN 7
DALPF OUT 8
MIX OUT 9
OSC
COUNTER
SRAM
D/A
A/D
MIX
18 CR
17 MUTE
16
15 VCC
14 ADINT IN
13 ADINT OUT
12 ADLPF OUT
11 ADLPF IN
10 MIX IN

2.Pin Function

Pin No.	Symbol	I/O	Descriptions
1	GND	-	Connect GND
2	ECHO VR	I	Echo level control
3		-	Non connect
4	BIAS	-	Analog part DC bias
5	DAINT IN	I	DA side integrator input
6	DAINT OUT	O	DA side integrator output
7	DALPF IN	I	DA side LPF input
8	DALPF OUT	O	DAside LPF output
9	MIX OUT	O	Mix AMP output for original tone& echo tone
10	MIX IN	I	Mix AMP input pin for original tone
11	ADLPF IN	I	AD side LPF input
12	ADLPF OUT	O	AD side LPF output
13	ADINT OUT	O	AD side integrator output
14	ADINT IN	I	AD side integrator input
15	VCC	-	Power supply
16	NC2	-	Non connect
17	MUTE	I	Mute control signal input
18	CR	-	CR pin for oscillator

■ LA1838(IC1): FM AM IF AMP&detector, FM MPX Decorder

1. Block Diagram


30
29
28
27
26
25
24
23
22
21
20
19
18
17
16
REG
ALC
AM
OSC
AM MIX
FM RF.AMP
BUFF
DECODER ANIT-BIRDIE
MUTE
STEREO SN SW
P-DET φ
AGC
AM IF
DET
SD COMP
AM S-METER
VCO 384KHz
FF 38k
FF 19k/2
FF 19k/LS
PILOT DET
FM S-METER
S-CLRVE
AM/FM IF-BUFF
TUNING DRIVE
STEREO DRIVE
FM IF
PM DET
GND
VCC
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

3. Pin Function

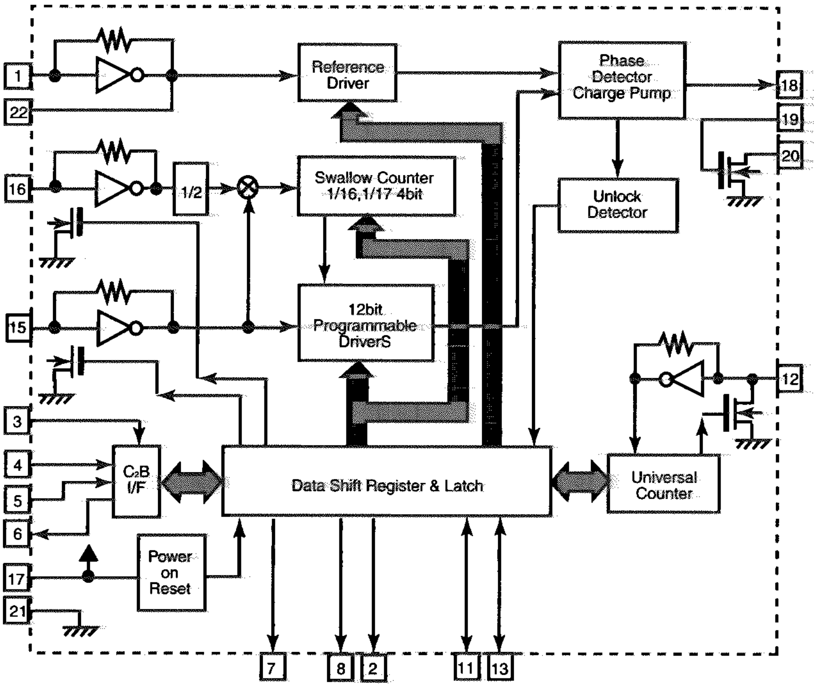
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	FM IN	I	This is an input terminal of FM IF signal.	16	L OUT	O	Left channel signal output.
2	AM MIX	O	This is an out put terminal for AM mixer.	17	R OUT	O	Right channel signal output.
3	FM IF	I	Bypass of FM IF	18	L IN	I	Input terminal of the Left channel post AMP.
4	AM IF	I	Input of AM IF Signal.	19	R IN	I	Input terminal of the Right channel post AMP.
5	GND	–	This is the device ground terminal.	20	RO	O	Mpx Right channel signal output.
6	TUNED	O	When the set is tunning,this terminal becomes "L".	21	LO	O	Mpx Left channel signal output.
7	STEREO	O	Stereo indicator output. Stereo "L", Mono: "H"	22	IF IN	I	Mpx input terminal
8	VCC	–	This is the power supply terminal.	23	FM OUT	O	FM detection output.
9	FM DET	–	FM detect transformer.	24	AM DET	O	AM detection output.
10	AM SD	–	This is a terminal of AM ceramic filter.	25	AM AGC	I	This is an AGC voltage input terminal for AM
11	FM VSM	O	Adjust FM SD sensitivity.	26	AFC	–	This is an output terminal of voltage for FM-AFC.
12	AM VSM	O	Adjust AM SD sensitivity.	27	AM RF	I	AM RF signal input.
13	MUTE	I/O	When the signal of IF REQ of IC121(LC72131) appear, the signal of FM/AM IF output. //Muting control input.	28	REG	O	Register value between pin 26 and pin28 desides the frequency width of the input signal.
14	FM/AM	I	Change over the FM/AM input. "H" :FM, "L" : AM	29	AM OSC	–	This is a terminal of AM Local oscillation circuit.
15	MONO/ST	O	Stereo : "H", Mono: "L"	30	OSC BUFFER	O	AM Local oscillation Signal output.

■LC72136N(IC2):PLL Frequency sinsesizer

1. Layout

XT	1	22	$\overline{\mathrm{XT}}$
$\overline{\mathrm{FM}}$/AM	2	21	GND
CE	3	20	LPFOUT
DI	4	19	LPFIN
CLOCK	5	18	PD
DO	6	17	VCC
FM/ST/VCO	7	16	FMIN
$\overline{\mathrm{AM}}$/FM	8	15	AMIN
	9	14	
	10	13	IFCONT
SDIN	11	12	IFIN

2. Block

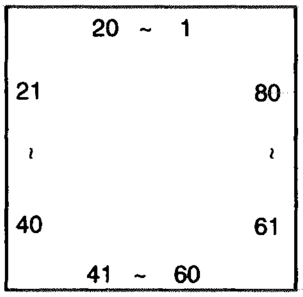

1
22
16
15
3
4
5
6
17
21
1/2
Reference Driver
Phase Detector Charge Pump
Swallow Counter 1/16,1/17 4bit
Unlock Detector
12bit Programmable DriverS
C₂B I/F
Data Shift Register & Latch
Universal Counter
Power on Reset
18
19
20
12
7
8
2
11
13

3. Function

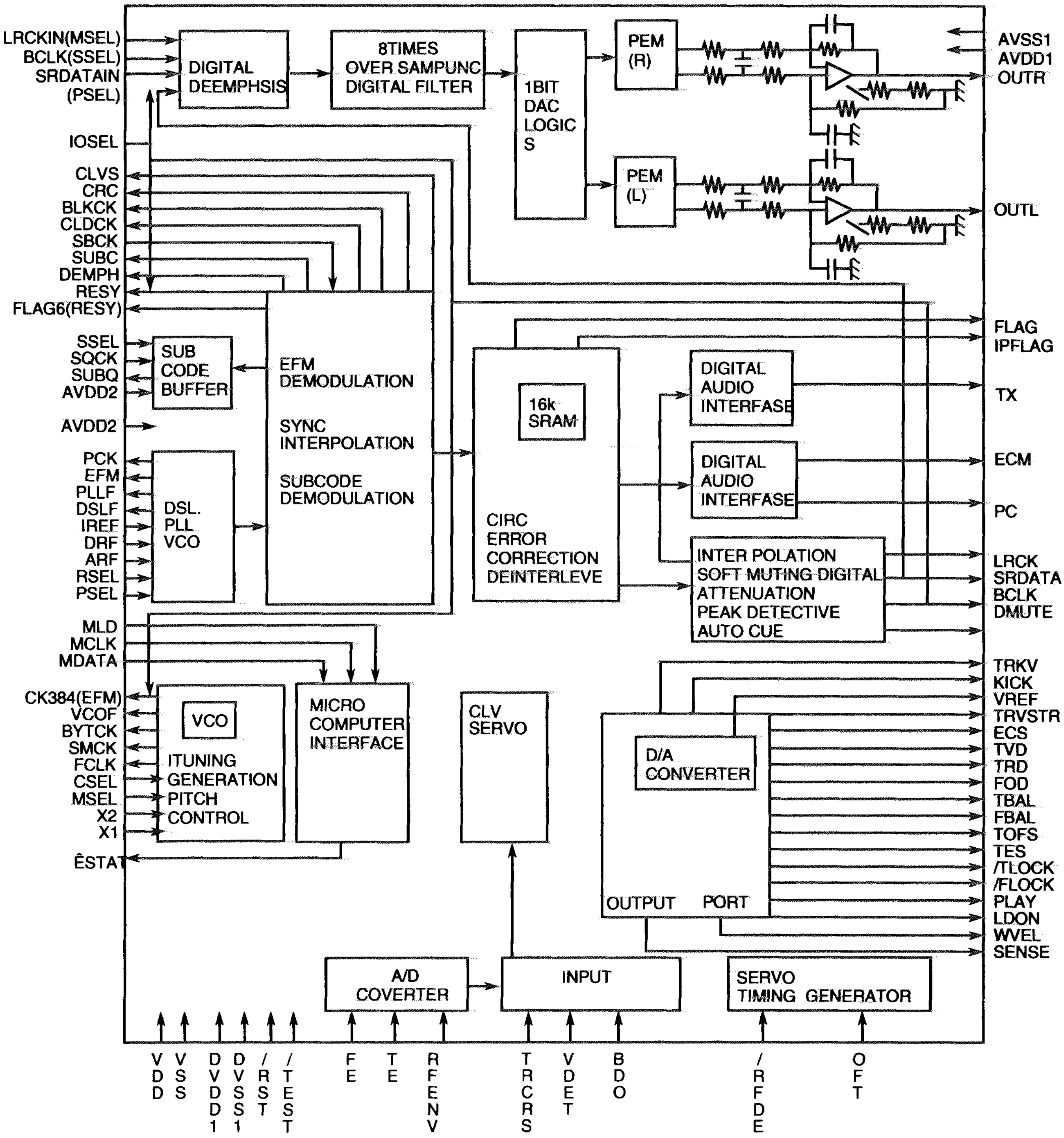
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	XT	I	X'tal oscillator connect (75kHz)	12	IFIN	I	IF counter signal input
2	$\overline{\mathrm{FM}}$/AM	O	LOW:FM mode	13	IFCONT	O	IF signal output
3	CE	I	When data output/input for 4pin(input) and 6pin(output): H	14		-	Not use
4	DI	I	Input for receive the sirisl data from controller	15	AMIN	I	AM Local OSC signal output
5	CLOCK	I	Sync signal input use	16	FMIN	I	FM Local OSC signal input
6	DO	O	Data output for Controller Output port	17	VCC	-	Power suplly(VDD=4.5-5.5V) When power ON:Reset circuit move
7	FM/ST/VCO	O	"Low": MW mode	18	PD	O	PLL charge pump output(H: Local OSC frequency Height than Reference frequency. L: Low Agreement: Height impedance)
8	$\overline{\mathrm{AM}}$/FM	O	Not use	19	LPFIN	I	Input for active lowpassfilter of PLL
9		-	Not use	20	LPFOUT	O	Output for active lowpassfilter of PLL
10		-	Input/output port	21	GND	-	Connected to GND
11	SDIN	I/O	Data input/output	22	$\overline{\mathrm{XT}}$	I	X'tal oscillator(75KHz)

■ MN35510(IC651):DIGITAL SERVO&DIGITAL SIGNAL PROCESSER

1. Terminal Layout


20 ~ 1
21
80
40
61
41 ~ 60

2.Block Diagram

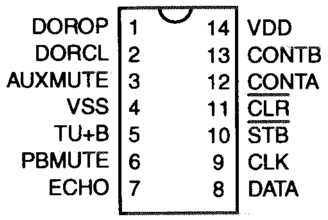

LRCKIN(MSEL)
BCLK(SSEL)
SRDATAIN
(PSEL)
IOSEL
CLVS
CRC
BLKCK
CLDCK
SBCK
SUBC
DEMPH
RESY
FLAG6(RESY)
SSEL
SQCK
SUBQ
AVDD2
AVDD2
PCK
EFM
PLLF
DSLF
IREF
DRF
ARF
RSEL
PSEL
MLD
MCLK
MDATA
CK384(EFM)
VCOF
BYTCK
SMCK
FCLK
CSEL
MSEL
X2
X1
ÊSTAT
DIGITAL DEEMPHSIS
8TIMES OVER SAMPUNC DIGITAL FILTER
1BIT DAC LOGIC S
PEM (R)
PEM (L)
AVSS1
AVDD1
OUTR
OUTL
FLAG
IPFLAG
TX
ECM
PC
LRCK
SRDATA
BCLK
DMUTE
SUB CODE BUFFER
EFM DEMODULATION
SYNC INTERPOLATION
SUBCODE DEMODULATION
DSL. PLL VCO
16k SRAM
CIRC ERROR CORRECTION DEINTERLEVE
DIGITAL AUDIO INTERFASE
DIGITAL AUDIO INTERFASE
INTER POLATION SOFT MUTING DIGITAL ATTENUATION PEAK DETECTIVE AUTO CUE
VCO
ITUNING GENERATION PITCH CONTROL
MICRO COMPUTER INTERFACE
CLV SERVO
D/A CONVERTER
OUTPUT PORT
TRKV
KICK
VREF
TRVSTR
ECS
TVD
TRD
FOD
TBAL
FBAL
TOFS
TES
/TLOCK
/FLOCK
PLAY
LDON
WVEL
SENSE
A/D COVERTER
INPUT
SERVO TIMING GENERATOR
VDD
VSS
DVDD1
DVSS1
/RST
/TEST
FE
TE
RFENV
TRCRS
VDET
BDO
/RFDE
OFT

3. Description

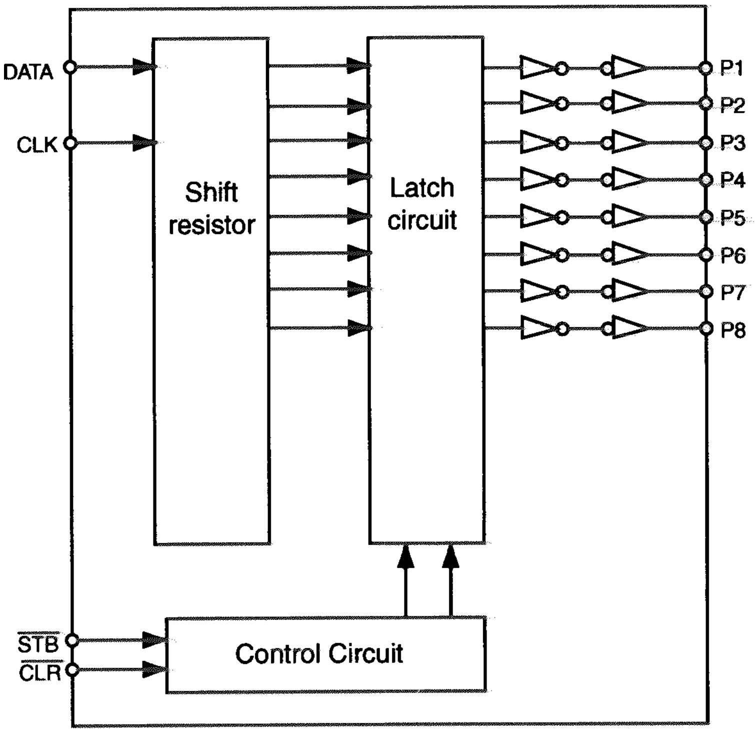
Pin No.	symbol	I/O	Description	Pin No.	symbol	I/O	Description
1	BCLK	O	Not used	41	TES	O	Tracking error shunt signal output(H:shunt)
2	LRCK	O	Not used	42	PLAY	—	Not used
3	SRDATA	O	Not used	43	WVEL	—	Not used
4	DVDD1	—	Power supply (Digital)	44	ARF	I	RF signal input
5	DVSS1	—	Connected to GND	45	IREF	I	Reference current input pin
6	TX	O	Digital audio interface output	46	DRF	I	Bias pin for DSL
7	MCLK	I	μcom command clock signal input (Data is latched at signal's rising point)	47	DSLF	I/O	Loop filter pin for DSL
8	MDATA	I	μcom command data input	48	PLLF	I/O	Loop filter pin for PLL
9	MLD	I	μcom command load signal input	49	VCOF	—	Not used
10	SENSE	O	Sence signal output	50	AVDD2	—	Power supply(Analog)
11	FLOCK	O	Focus lock signal output Active :Low	51	AVSS2	—	Connected to GND(Analog)
12	TLOCK	O	Tracking lock signal output Active :Low	52	EFM	—	Not used
13	BLKCK	O	sub-code·block·clock signal output	53	PCK	—	Not used
14	SQCK	I	Outside clock for sub-code Q resister input	54	PDO	—	Not used
15	SUBQ	O	Sub-code Q -code output	55	SUBC	—	Not used
16	DMUTE	—	Connected to GND	56	SBCK	—	Not used
17	STATUS	O	Status signal (CRC,CUE,CLVS,TTSTOP,ECLV,SQOK)	57	VSS	—	Connected to GND(for X'tal oscillation circuit)
18	RST	I	Reset signal input (L:Reset)	58	XI	I	Input of 16.9344MHz X'tal oscillation circuit
19	SMCK	—	Not used	59	X2	O	Output of X'tal oscillation circuit
20	PMCK	—	Not used	60	VDD	—	Power supply(for X'tal cscillation circuit)
21	TRV	O	Traverse enforced output	61	BYTCK	—	Not used
22	TVD	O	Traverse drive output	62	CLDCK	—	Not used
23	PC	—	Not used	63	FLAG	—	Not used
24	ECM	O	Spindle motor drive signal (Enforced mode output) 3-State	64	IPPLAG	—	Not used
25	ECS	O	Spindle motor drive signal (Servo error signal output)	65	FLAG	—	Not used
26	KICK	O	Kick pulse output	66	CLVS	—	Not used
27	TRD	O	Tracking drive output	67	CRC	—	Not used
28	FOD	O	Focus drive output	68	DEMPH		Not used
29	VREF	I	Reference voltage input pin for D/A output block (TVD,FOD,FBA,TBAL)	69	RESY	—	Not used
30	FBAL	O	Focus Balance adjust signal output	70	IOSEL	—	pull up
31	TBAL	O	Tracking Balance adjust signal output	71	TEST	—	pull up
32	FE	I	Focus error signal input(Analog input)	72	AVDD1	—	Power supply(Digital)
33	TE	I	Tracking error signal input(Analog input)	73	OUT L	O	Lch audio output
34	RF ENV	I	RF envelope signal input(Analog input)	74	AVSS1	—	Connected to GND
35	VDET	I	Vibration detect signal input(H:detect)	75	OUT R	O	Rch audio output
36	OFT	I	Off track signal input(H:off track)	76	RSEL	—	pull up
37	TRCRS	I	Track cross signal input	77	CSEL	—	Connected to GND
38	RFDET	I	RF detect signal input(L:detect)	78	PSEL	—	Connected to GND
39	BDO	I	BDO input pin(L:detect)	79	MSEL	—	Connected to GND
40	LDON	O	Laser ON signal output(H:on)	80	SSEL	—	Pull up

■NJU3711D(IC854) : Mute & Rolling panel motor control

1.Terminal Layout


DOROP 1
DORCL 2
AUXMUTE 3
VSS 4
TU+B 5
PBMUTE 6
ECHO 7
8 DATA
9 CLK
10 $\overline{\text{STB}}$
11 $\overline{\text{CLR}}$
12 CONTA
13 CONTB
14 VDD

2.Block Diagram

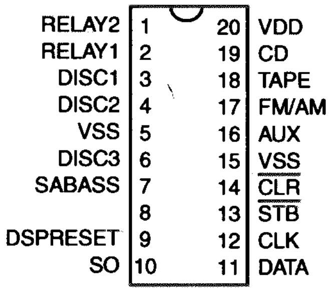

DATA
CLK
Shift resistor
Latch circuit
P1
P2
P3
P4
P5
P6
P7
P8
$\overline{\text{STB}}$
$\overline{\text{CLR}}$
Control Circuit

3.Pin Function

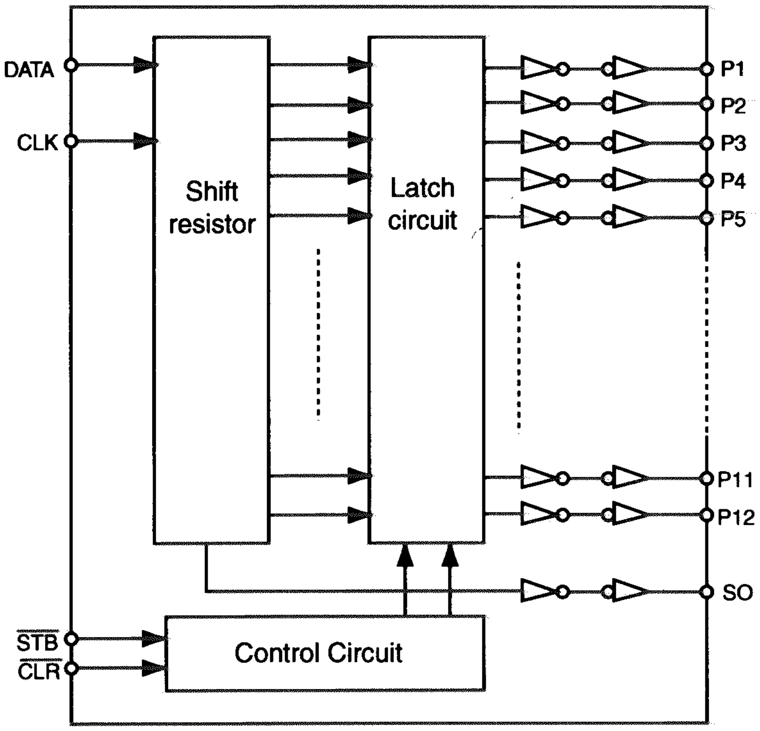
PIN No.	I/O	Symbol	Function
1~3	O	DOROP/DORCL/AUXMUTE	Parallel conversion data output terminal.
4	-	VSS	Connect to GND.
5~7	O	TU+B/PBMUTE/ECHO	Parallel conversion data output terminal.
8	I	DATA	Serial data input terminal.
9	I	CLK	Clock signal input terminal.
10	I	$\overline{\text{STB}}$	Strobe signal input terminal.
11	I	$\overline{\text{CLR}}$	Clear signal input terminal.
12.13	O	CONTA/CONTB	Parallel conversion data output terminal
14	-	VDD	Power supply.

■ NJU3714D(IC811) : L.E.D.Driver

1.Terminal Layout


RELAY2 1
RELAY1 2
DISC1 3
DISC2 4
VSS 5
DISC3 6
SABASS 7
8
DSPRESET 9
SO 10
20 VDD
19 CD
18 TAPE
17 FM/AM
16 AUX
15 VSS
14 $\overline{\text{CLR}}$
13 $\overline{\text{STB}}$
12 CLK
11 DATA

2.Block Diagram

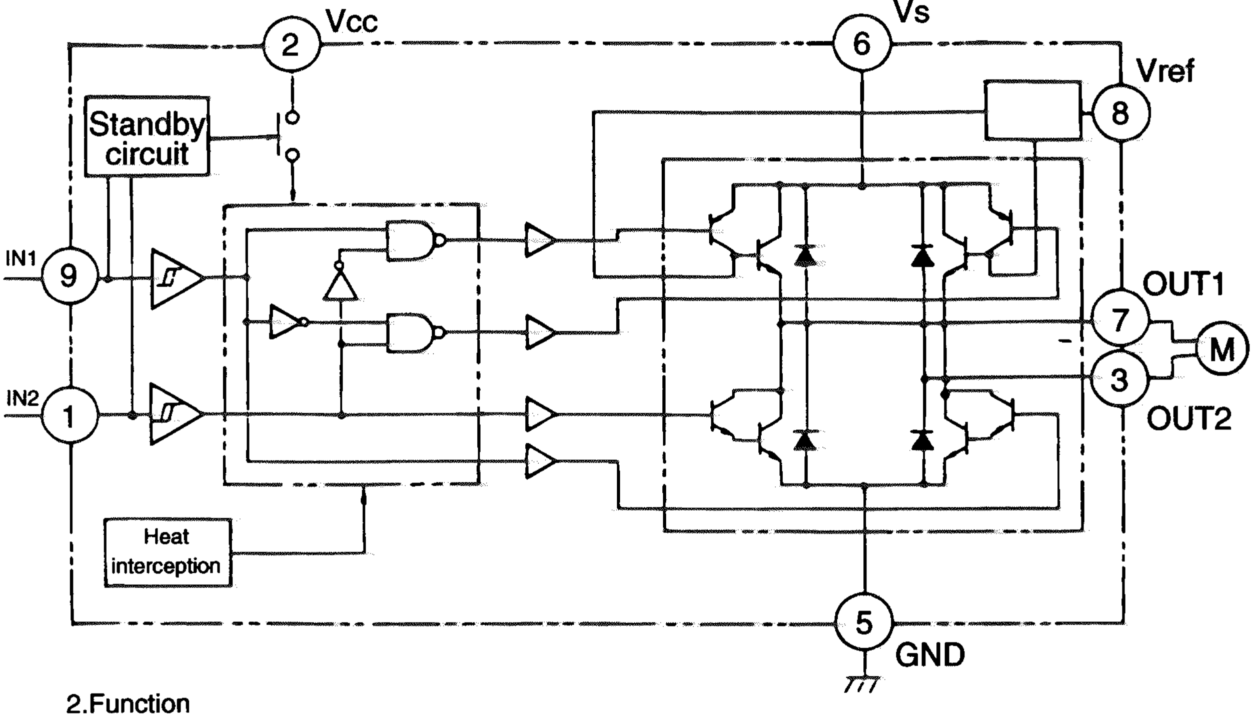

DATA
CLK
Shift resistor
Latch circuit
P1
P2
P3
P4
P5
P11
P12
SO
$\overline{\text{STB}}$
$\overline{\text{CLR}}$
Control Circuit

3.Pin Function

PIN No.	I/O	Symbol	Function
1~4	O	RELAY1.2/DISC1.2	Parallel conversion data output terminal.
5	-	VSS	Connect to GND.
6~9	O	DISC3/SABASS/DSPRESET	Parallel conversion data output terminal.
10	O	SO	Serial data output terminal.
11	I	DATA	Serial data input terminal.
12	I	CLK	Clock signal input terminal.
13	I	$\overline{\text{STB}}$	Strobe signal input terminal.
14	I	$\overline{\text{CLR}}$	Clear signal input terminal.
15	-	VSS	Connect to GND.
16~19	O	AUX/FM/AM/TAPE/CD	Parallel conversion data output terminal
20	-	VDD	Power supply.

■ TA8409S(IC851.IC852):Motor Driver

1.Block Diagram

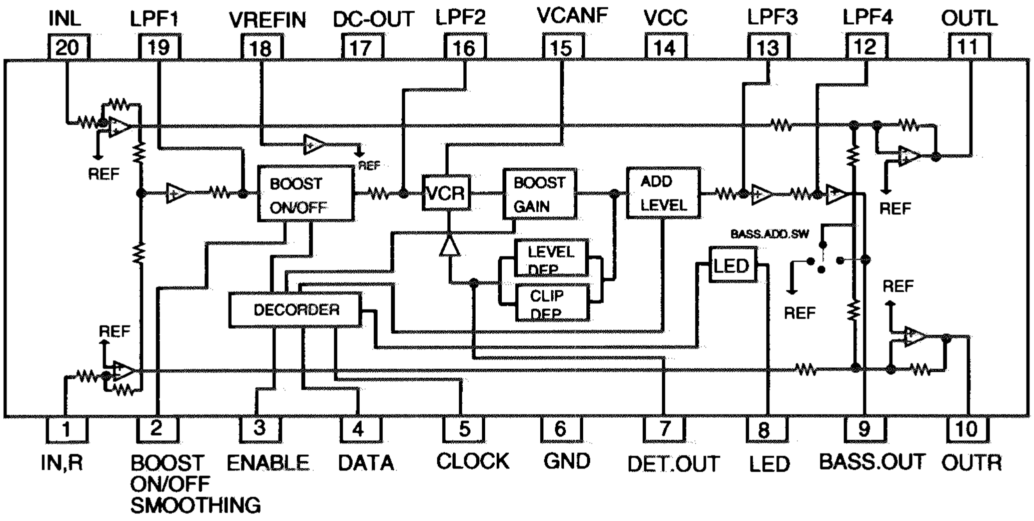

2
Vcc
6
Vs
Vref
8
Standby circuit
IN1
9
IN2
1
OUT1
7
M
3
OUT2
Heat interception
5
GND

2.Function

INPUT		OUTPUT		MODE
IN1	IN2	OUT1	OUT2	MOTOR
0	0	∞	∞	STOP
1	0	H	L	CW/CCW
0	1	L	H	CCW/CW
1	1	L	L	BRAKE

■ LA2650 (IC406) : SA BASS

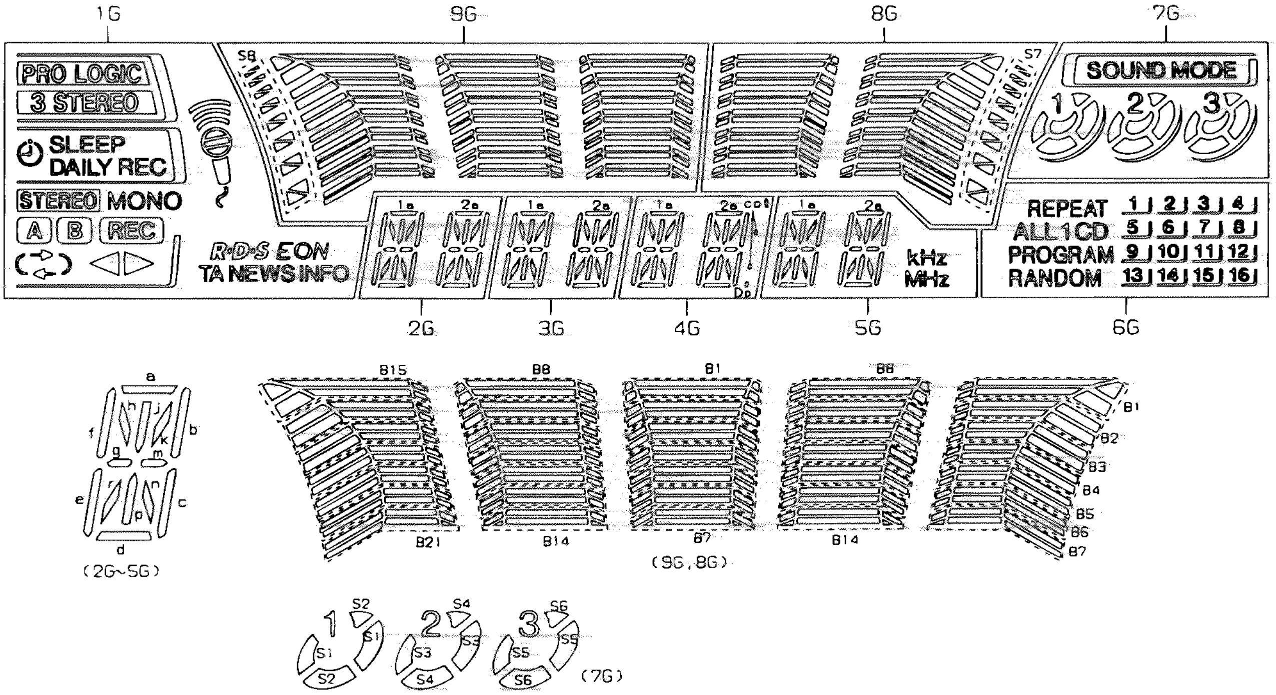
1.Terminal Layout/Block diagram


INL
20
LPF1
19
VREFIN
18
DC-OUT
17
LPF2
16
VCANF
15
VCC
14
LPF3
13
LPF4
12
OUTL
11
REF
REF
BOOST ON/OFF
VCR
BOOST GAIN
ADD LEVEL
REF
BASS.ADD.SW
LED
LEVEL DEP
CLIP DEP
DECORDER
REF
REF
REF
1
IN,R
2
BOOST ON/OFF SMOOTHING
3
ENABLE
4
DATA
5
CLOCK
6
GND
7
DET.OUT
8
LED
9
BASS.OUT
10
OUTR

Internal connections for display tube

■ QLF0059-001 (FL801)

1.Grid assignment


1G
9G
8G
7G
S8
S7
PRO LOGIC
3 STEREO
SLEEP
DAILY REC
STEREO MONO
A B REC
R·D·S EON
TA NEWS INFO
SOUND MODE
1 2 3
REPEAT 1 2 3 4
ALL1CD 5 6 7 8
PROGRAM 9 10 11 12
RANDOM 13 14 15 16
1a 2a col
Dp
kHz
MHz
2G
3G
4G
5G
6G
a
h j k
f b
g m
e c
n p
d
(2G~5G)
B15
B8
B1
B8
B21
B14
B7
B14
B1
B2
B3
B4
B5
B6
B7
(9G,8G)
S1 S2 S3 S4 S5 S6
(7G)

2.Pin connection

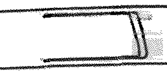
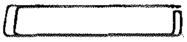
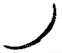
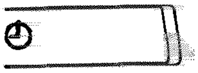
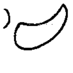
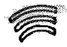
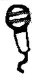
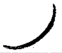
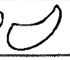
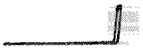
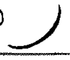
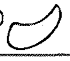
PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
CONNECTION	F1	F1	NP	NP	NC	NC	P30	P29	P28	P27	P26	P25	P24	P23	P22	P21	P20	P19	P18	P17	P16	P15	P14	P13	P12

PIN NO.	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
CONNECTION	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	NC	1G

PIN NO.	51	52	53	54	55	56	57	58	59	60	61	62
CONNECTION	2G	3G	4G	5G	6G	7G	8G	9G	NP	NP	F2	F2

NOTE
1) F1,F2 ---- Filament
2) NP ------- No pin
3) NC ------- No connection
4) DL ------- Datum Line
5) 1G~9G --- Grid

3.Anode connection

	1G	2G,3G	4G	5G	6G	7G	8G	9G
P1		2a	2a	2a	–		S7	S8
P2	PRO LOGIC	2h	2h	2h	–	**SOUND MODE**	B1	B1
P3	3 STEREO	2j	2j	2j	**REPEAT**	1	B2	B2
P4	**SLEEP**	2k	2k	2k	ALL	S1	B3	B3
P5	DAILY	2b	2b	2b	(ALL) 1	S2	B4	B4
P6	REC	2f	2f	2f	CD	(1) 	B5	B5
P7		2m	2m	2m	**PROGRAM**	(1) 	B6	B6
P8		2g	2g	2g	**RANDOM**	2	B7	B7
P9		2c	2c	2c	1	S3	–	–
P10	STEREO	2e	2e	2e	2	S4	–	–
P11	MONO	2r	2r	2r	3	(2) 	–	–
P12	A	2p	2p	2p	4	(2) 	–	–
P13	B	2n	2n	2n	5	3	–	–
P14	(REC)	2d	2d	2d	6	S5	–	–
P15		–	col	kHz	7	S6	–	–
P16	( )	–	Dp	MHz	8	(3) 	–	–
P17	⇨ ⇦	1a	1a	1a	9	(3) 	B8	B8
P18	▷	1h	1h	1h	10	–	B9	B9
P19	◁	1j	1j	1j	11	–	B10	B10
P20	*R·D·S*	1k	1k	1k	12	–	B11	B11
P21	*EON*	1b	1b	1b	13	–	B12	B12
P22	TA	1f	1f	1f	14	–	B13	B13
P23	NEWS	1m	1m	1m	15	–	B14	B14
P24	INFO	1g	1g	1g	16	–	–	B15
P25	–	1c	1c	1c	–	–	–	B16
P26	–	1e	1e	1e	–	–	–	B17
P27	–	1r	1r	1r	–	–	–	B18
P28	–	1p	1p	1p	–	–	–	B19
P29	–	1n	1n	1n	–	–	–	B20
P30	–	1d	1d	1d	–	–	–	B21

Removal of Main Parts

< Main body >

■ Removing the Metal Cover (See Fig.1 to 3)

1. Remove the six A screws attaching the metal cover on the back of the body.
2. Remove the two B screws attaching the metal cover on both sides of the body.
3. Lift the metal cover on the back of the body and remove it from the body.

CAUTION: DO NOT break the front panel tab fitted to the metal cover.

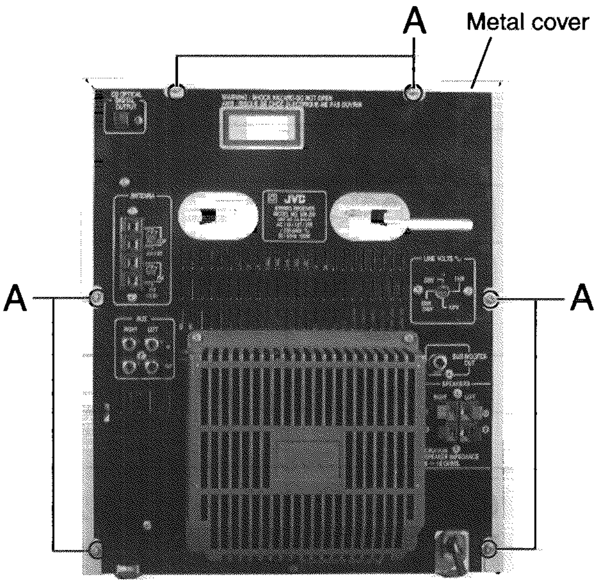


Fig.1

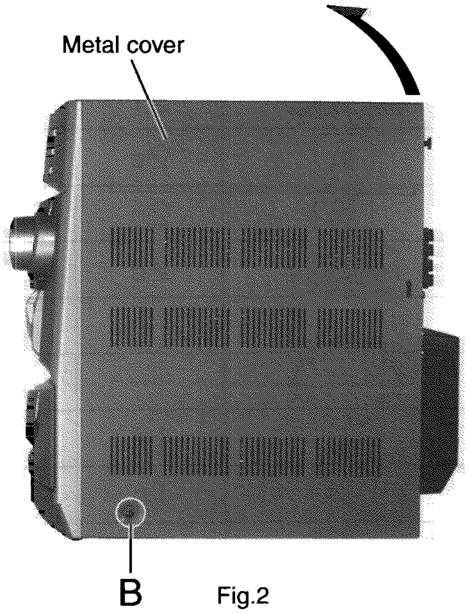


Fig.2

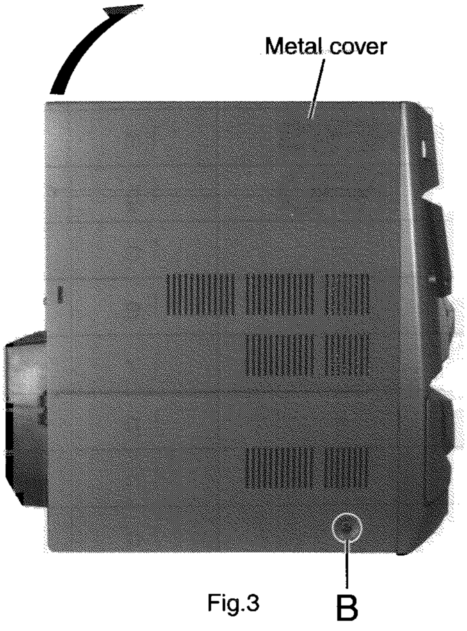


Fig.3

■ Removing the CD Changer Mechanism Assembly

(See Fig.4 to 6)

- Prior to performing the following procedure, remove the metal cover.

1. Disconnect the connector CN410 of the card wire connecting the CD changer mechanism board to the main board.
2. Remove the two C screws on the upper side of the CD changer assembly and the two D screws on the back of the rear panel.
3. Remove the plastic rivet attaching the main board.
4. Lift and remove the CD changer mechanism assembly on the back of the body while pulling the rear panel and the front panel assembly.

* To prevent damage to the CD fitting, be sure to pull the rear panel and the front panel assembly enough to remove the CD changer mechanism.

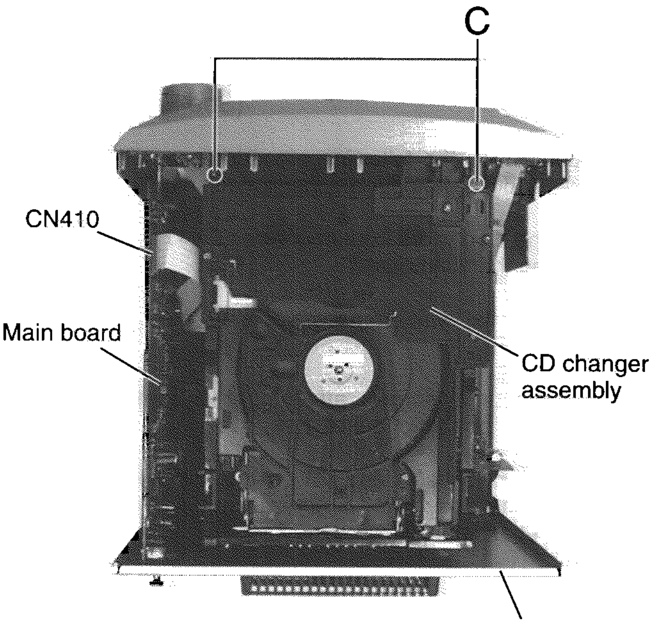

C
CN410
Main board
CD changer assembly
Rear panel

Fig.4

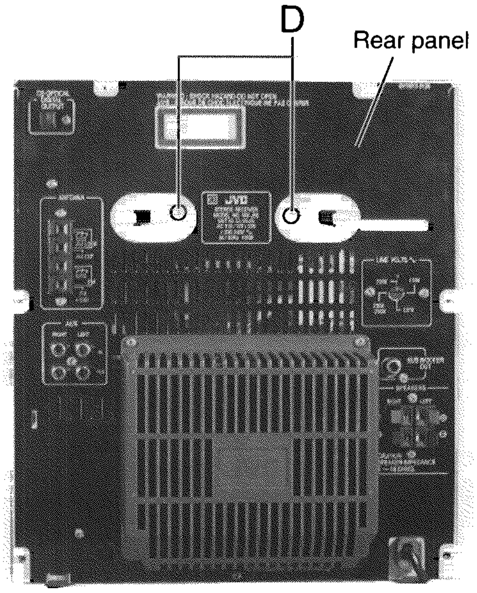

D
Rear panel

Fig.5

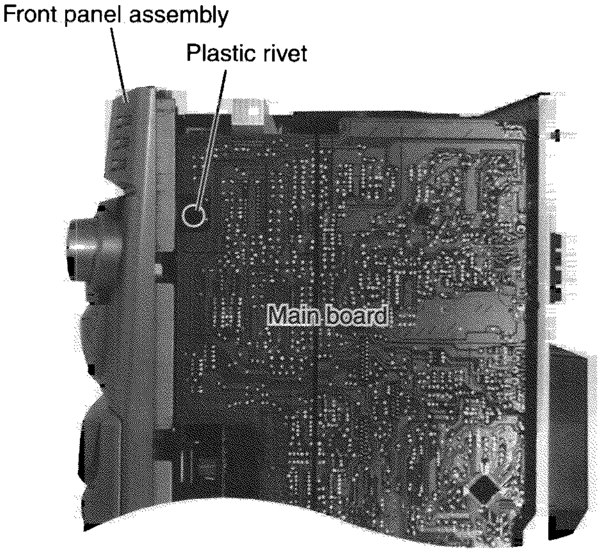

Front panel assembly
Plastic rivet
Main board

Fig.6

< Front Assembly >

■ Removing the Front Panel Assembly

(See Fig.7 to 9)

- Prior to performing the following procedure, remove the metal cover and CD changer mechanism assembly.

1. Disconnect the card wires from connector CN411, CN412 and CN413 on the main board.
2. Disconnect the flat wire from connector CN703 on the amplifier board.
3. Remove the four E screws attaching the front panel assembly on the bottom of the body.
4. Release the two joints(a) and (b) on the lower left and right sides of the body using a screwdriver, and remove the front panel assembly toward the front.

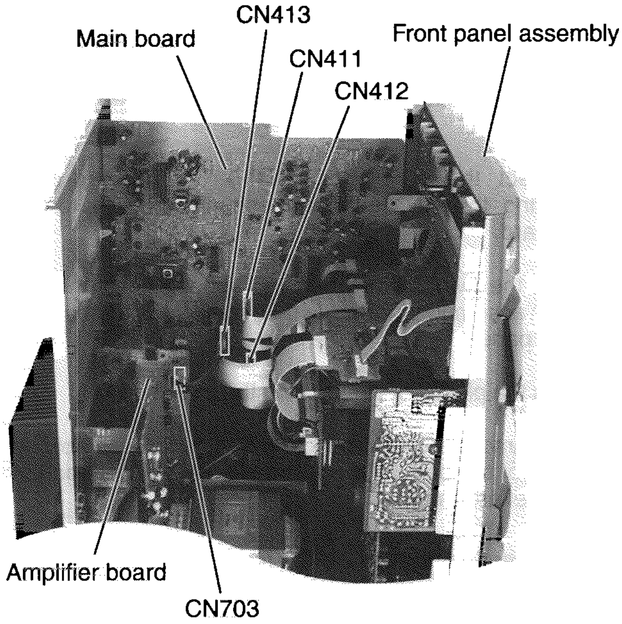

Main board
CN413
CN411
CN412
Front panel assembly
Amplifier board
CN703

Fig.7

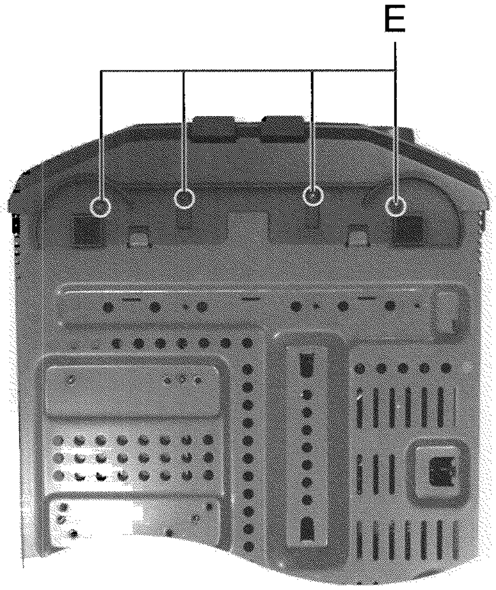


Fig.8

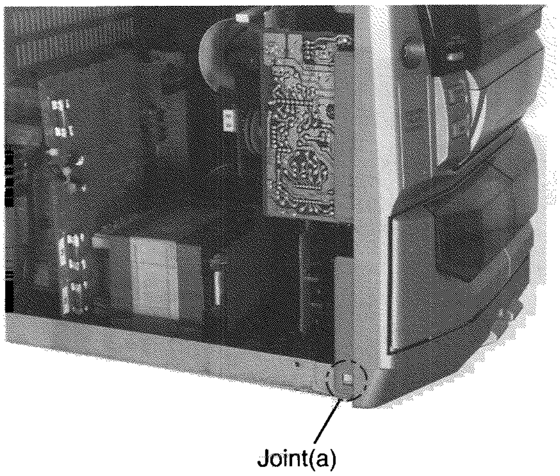


Fig.9a

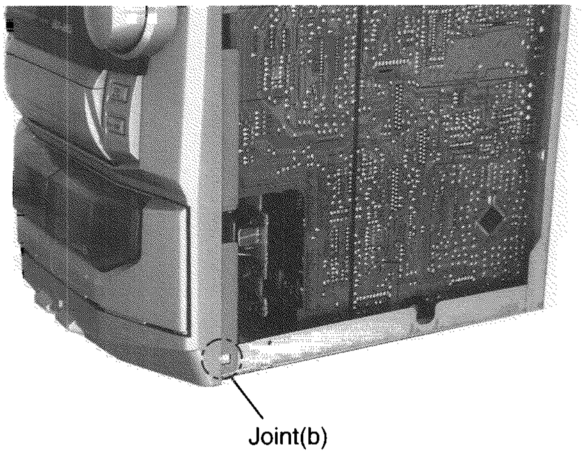


Fig.9b

■ Removing the Rolling panel Panel assembly
(See Fig.10 and 11)

1. Disconnect the card wires from connector CN817,CN812, CN951 and CN816 on the upper system control & FL board and on the rolling panel assembly on the reverse side of the front panel assembly
2. Disconnect the card wire from connector CN859 on the relay board on the back of the rolling panel assembly.
3. Disconnect the flat wire from connector CN858 on the relay board. (Only Ver.U type)
4. Remove the six F screws attaching the stay bracket.
5. Remove the four G screws attaching the rolling panel assembly.

* Disconnect the flat wire extending from the phones board through the slit of the rolling panel assembly.

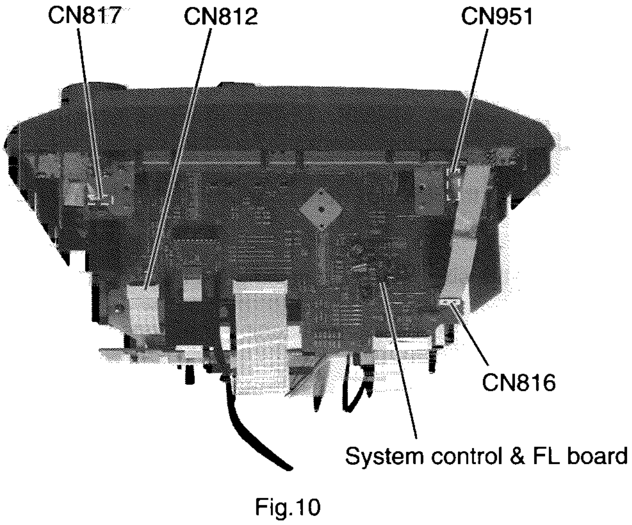

CN817
CN812
CN951
CN816
System control & FL board

Fig.10

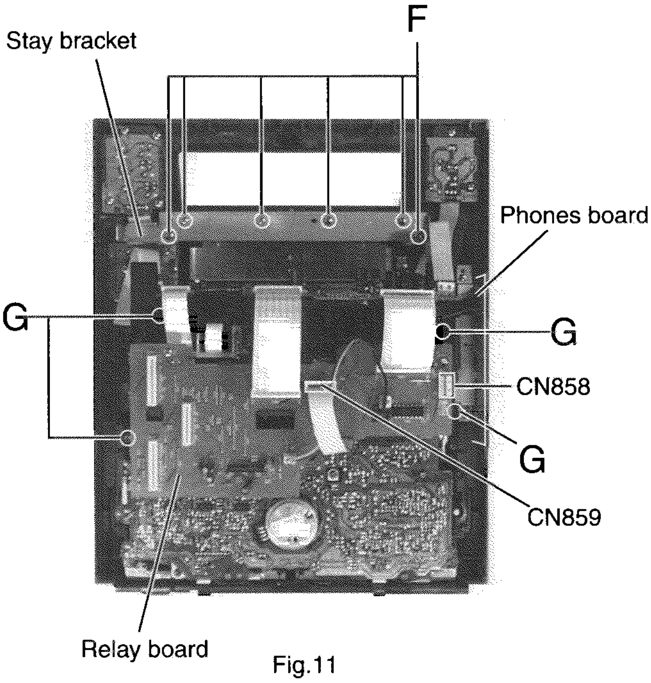

Stay bracket
F
Phones board
G
G
CN858
G
CN859
Relay board

Fig.11

■ Removing the Cassette Mechanism Assembly
(See Fig.12)

- Prior to performing the following procedure, remove the rolling panel assembly.

1. Remove the four H screws and four H1 screws attaching the cassette mechanism assembly.

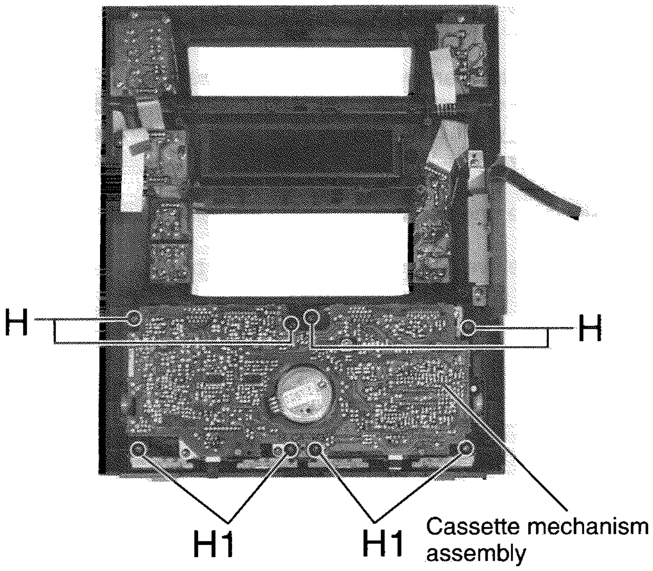

H
H
H1
H1
Cassette mechanism assembly

Fig.12

■ Removing the System Control & FL Board
(See Fig.13 and 14)

1. Disconnect the card wires and flat wires from connector CN812, CN817, CN816, CN951, CN813, CN810 and CN811 on the system control & FL board respectively.
2. Disconnect the flat wire from connector D851 on the relay board.
3. Remove the six F screws attaching the stay bracket.
4. Remove the two I screws attaching the system control & FL board.

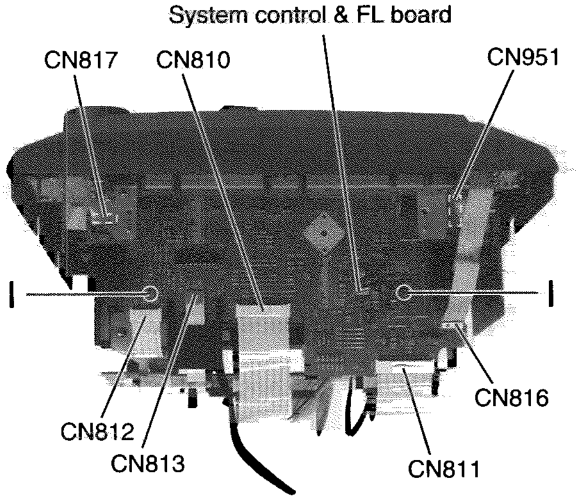

System control & FL board
CN817
CN810
CN951
I
I
CN816
CN812
CN813
CN811

Fig.13

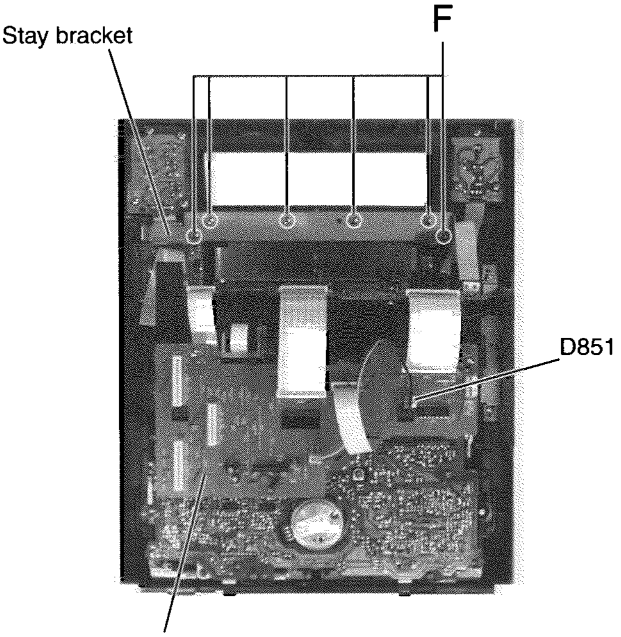

Stay bracket
F
D851
Relay board

Fig.14

■ Removing the Relay Board (See Fig.15)

1. Disconnect the card wires, the 2P harness and the flat wires from connector CN856, CN857, CN859, CN863, CN858 (Only Ver.U type) and D851 on the relay board respectively.
2. Remove the one screw J attaching the relay board.
3. Release the five c tabs fitted to the relay board.

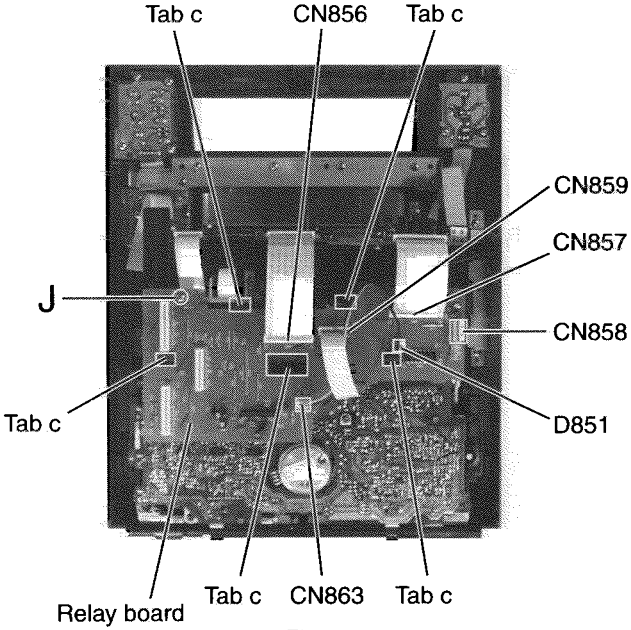

Tab c
CN856
Tab c
CN859
CN857
J
CN858
Tab c
D851
Relay board
Tab c
CN863
Tab c

Fig.15

■ Removing Each Board of the Front Panel Assembly (See Fig.16 and 17)

1. Disconnect the flat wire from connector CN816 on the system control & FL board on top of the rolling panel assembly.

2. Remove the three K screws attaching the power switch board.

3. Remove the two L screws attaching the phones board together with bracket.

   - * Remove the flat wire extending from the phones board through the slit of the rolling panel assembly.
   - * The flat wire connected with CN858 is removed for U version.
   - * The screw H1 is removed and the earth wire is removed for U version.

4. Remove the four M screws attaching the CD eject board and unsolder the flat wire.

   - Remove the rolling panel assembly.

5. Pull out the volume knob and nut toward the front.

6. Remove the two N screws attaching the volume board and unsolder the flat wire.

7. Remove the three O screws attaching the function board 1 and unsolder the flat wire.

8. Remove the four P screws attaching the function board 2.

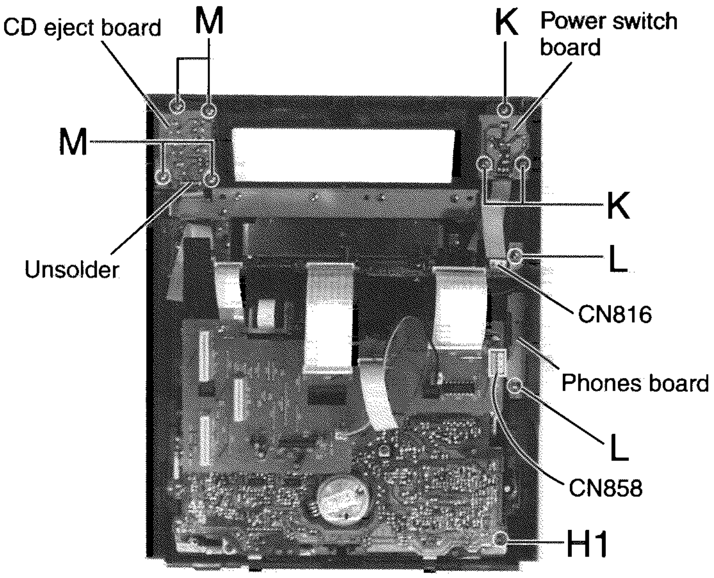

CD eject board
M
K
Power switch board
M
K
Unsolder
L
CN816
Phones board
L
CN858
H1

Fig.16

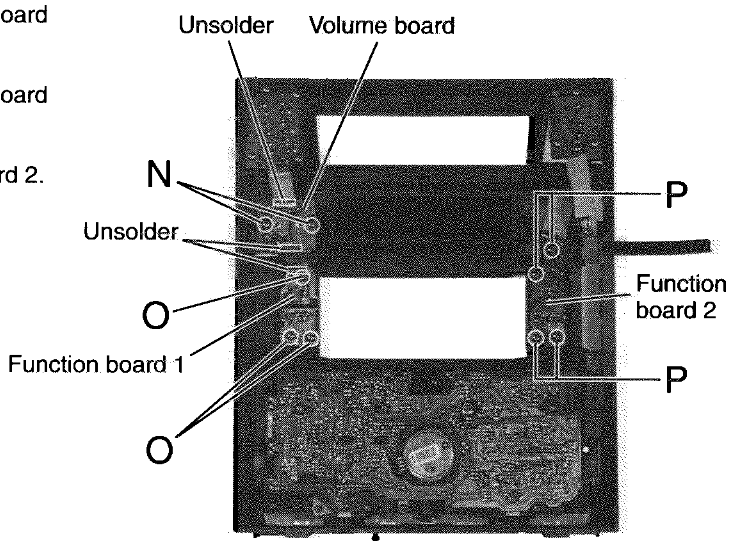

Unsolder
Volume board
N
P
Unsolder
Function board 2
O
Function board 1
P
O

Fig.17

< Rear Panel Assembly >

- Prior to performing the following procedure, remove the metal cover and the CD changer mechanism assembly.
- The following procedure can be performed even if the front panel assembly is attached.

■ Removing the Rear Cover (See Fig.18)

1. Remove the two Q screws attaching the rear cover on the back of the body.

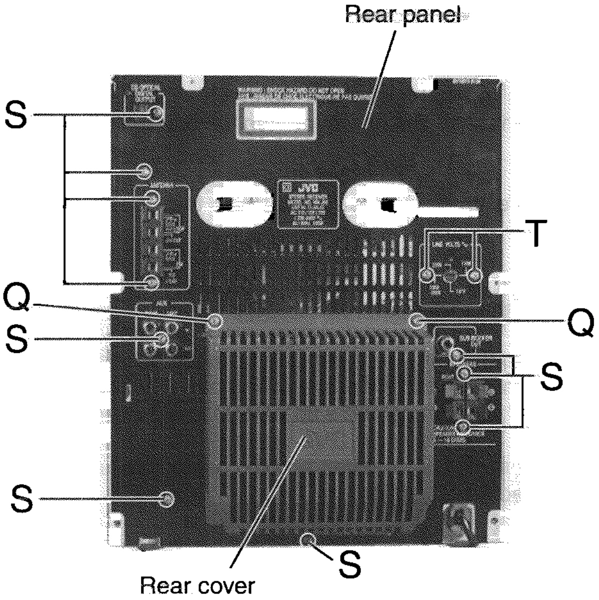


Fig.18

■ Removing the Rear Panel (See Fig.18 to 21)

- Prior to performing the following procedure, remove the rear cover.

1. Remove the four R screws attaching the heat sink and the rear panel.
2. Remove the ten S screws attaching the rear panel.
3. Remove the two T screws attaching the voltage selector and the rear panel. (Only Ver.U type)
4. Release the two joints(d) and (e) on the lower part of the rear panel using a screwdriver, and remove the rear panel toward the rear side.

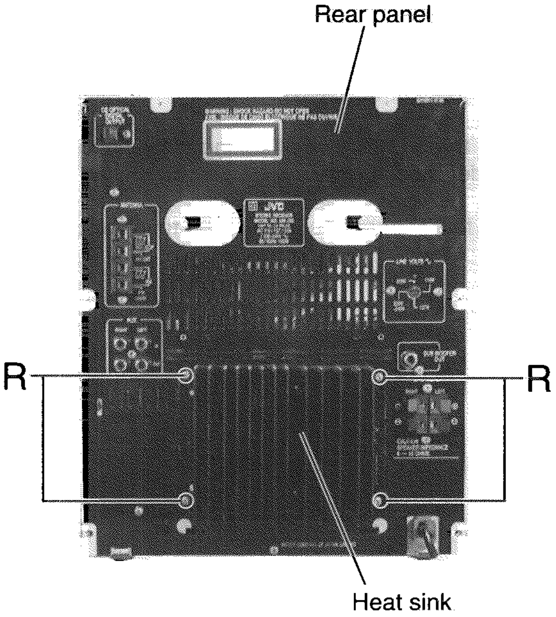


Fig.19

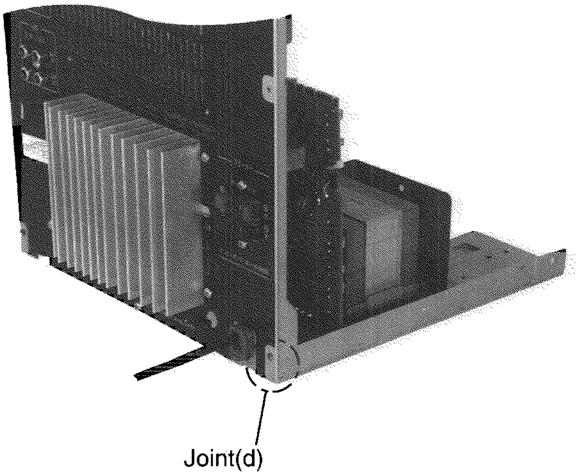


Fig.20

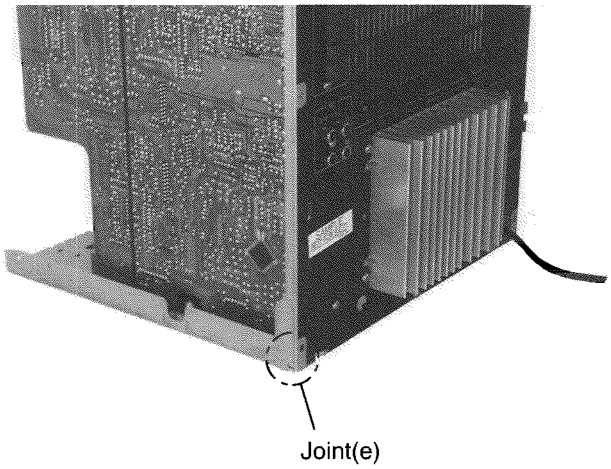


Fig.21

■ Removing the Main Board (See Fig.22 and 23)

- Prior to performing the following procedure, remove the metal cover, the CD changer mechanism assembly and the rear panel.

1. Disconnect the card wires from connector CN411, CN412 and CN413 on the main board and the flat wire from connector CN415.
2. Remove the screw U attaching the main board on the right side of the body.
3. Disconnect connector CN416 and CN417 under the main board, and remove the main board upward.

■ Removing the Rated Voltage Board and Power Amplifier Board (See Fig.22, 24 and 25)

- Prior to performing the following procedure, remove the metal cover, the CD changer mechanism assembly and the rear panel.
- The following procedure can be performed even if the front panel assembly is attached.

1. Disconnect the flat wire from connector CN703 on the power amplifier board.
2. Disconnect the flat wire from connector CN415 on the main board.
3. Pull out the rated voltage board and the power amplifier board upward from connector CN102 and CN103 on the power board respectively.
4. Remove the two V screws and two W screws attaching the heat sink together with the heat sink bracket.

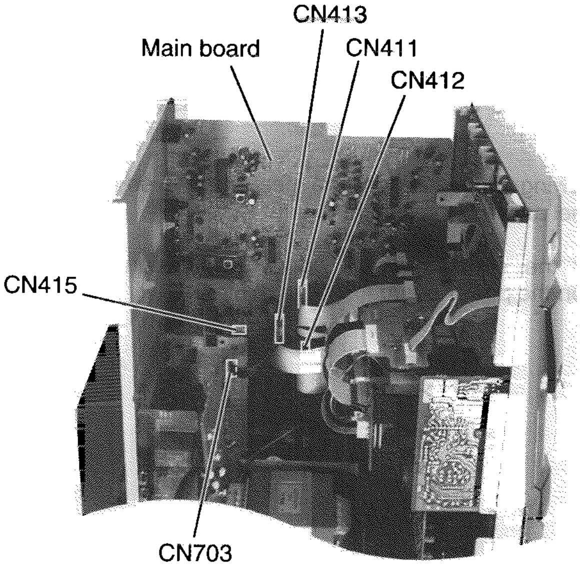

CN413
Main board
CN411
CN412
CN415
CN703

Fig.22

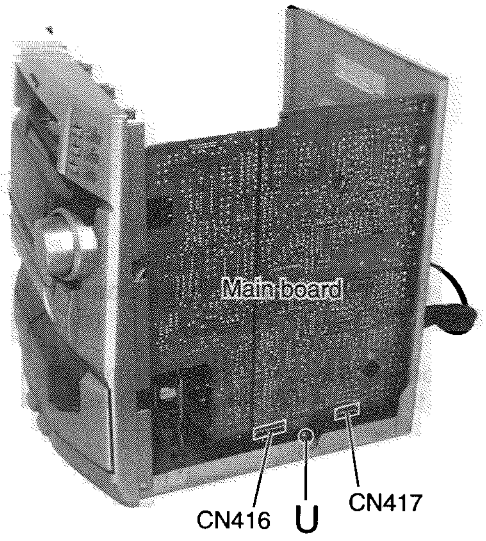

Main board
CN416
U
CN417

Fig.23

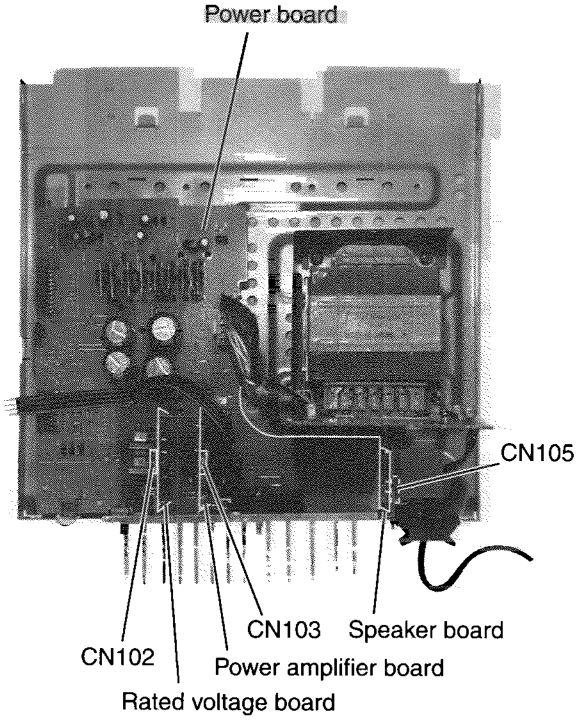

Power board
CN105
CN102
CN103
Speaker board
Power amplifier board
Rated voltage board

Fig.24

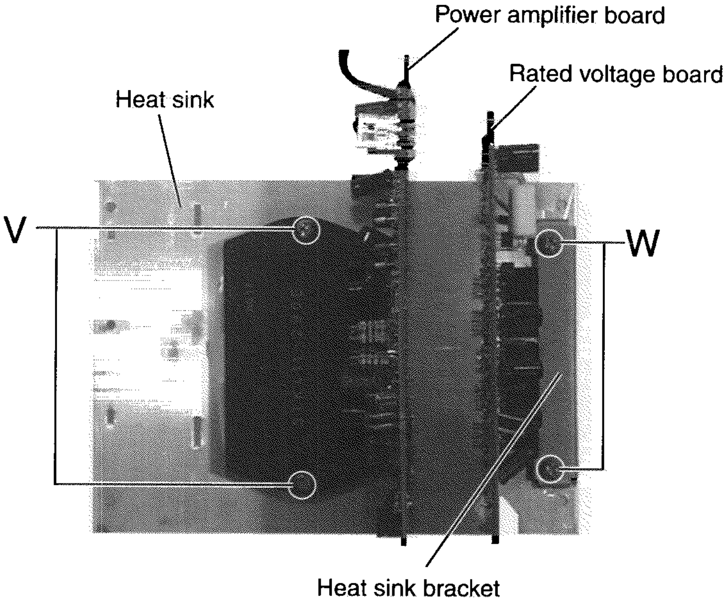

Power amplifier board
Rated voltage board
Heat sink
V
W
Heat sink bracket

Fig.25

■ Removing the Speaker Board (See Fig.24)

- Prior to performing the following procedure, remove the metal cover, the CD changer mechanism assembly and the rear panel.
- The following procedure can be performed even if the front panel assembly is attached.

1. Pull out the speaker board upward from connector CN105 on the power board.

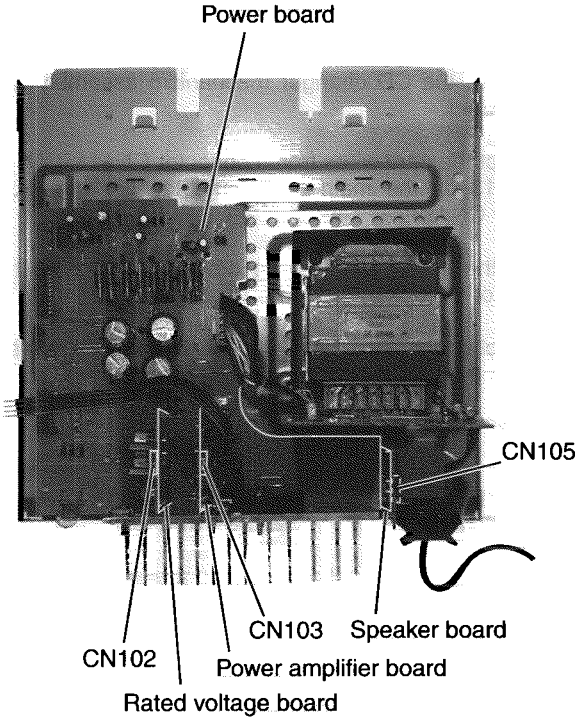

Power board
CN105
CN103
Speaker board
CN102
Power amplifier board
Rated voltage board

Fig.24

■ Removing the Power Transformer Board (See Fig.26)

- Prior to performing the following procedure, remove the metal cover, the CD changer mechanism assembly and the rear panel.

1. Disconnect the 5P harness and the flat wire from connector CN109 and CN111 on the power board.
2. Remove the four X screws attaching the power transformer assembly.
3. Push the cord stopper upward to remove it.

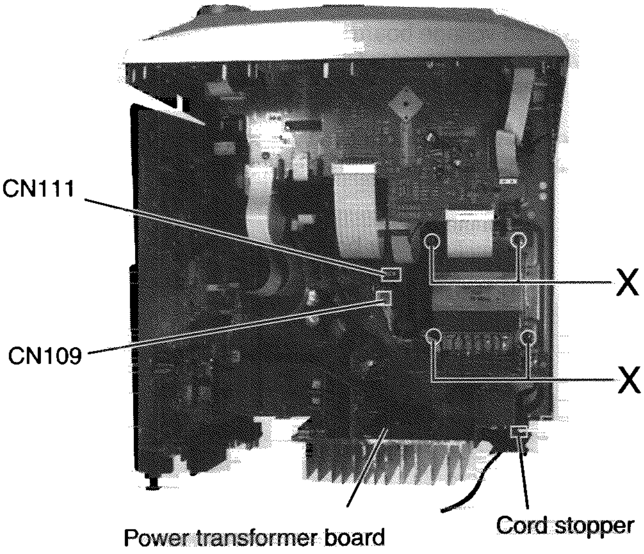

CN111
X
X
CN109
Power transformer board
Cord stopper

Fig.26

■ Removing the rolling Panel Assembly

(See Fig.27)

1. Remove the two Y screws attaching the rolling panel assembly.
2. Remove the rolling panel assembly while pulling outward the left and right hooks attaching the rolling panel assembly.

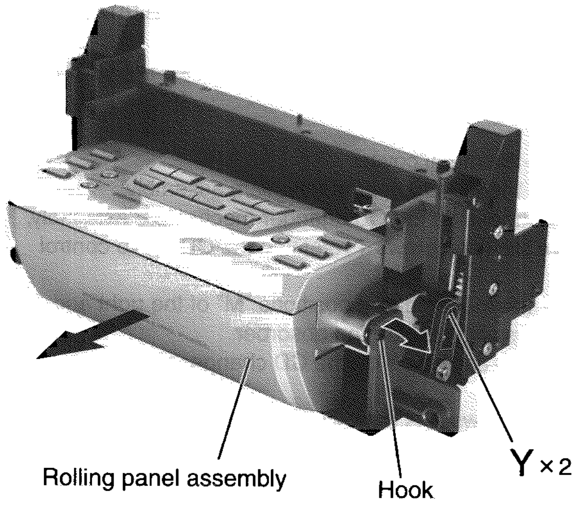

Rolling panel assembly
Hook
Y ×2

Fig.27

■ Removing the operation switch Board

(See Fig.28 and 29)

1. Remove the six Z screws attaching the cover and the bracket.
2. Release the two f tabs fitted to the bracket, and pull out the left and right panel holders.
3. Remove the two A screws attaching the operation switch board.

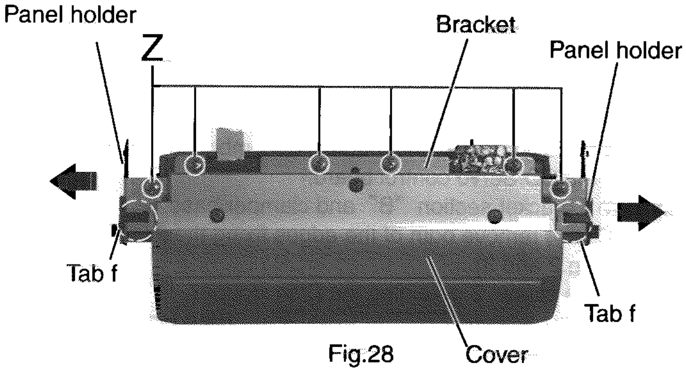

Panel holder
Z
Bracket
Panel holder
Tab f
Tab f
Cover

Fig.28

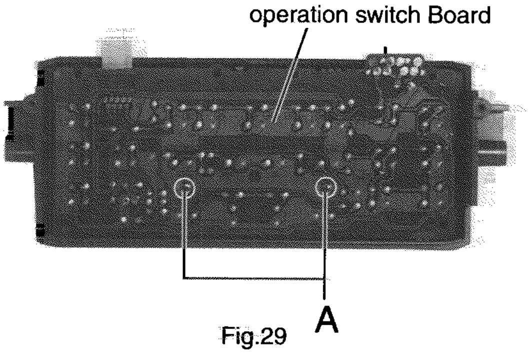

operation switch Board
A

Fig.29

■ Removing the Drive Motor (See Fig.30 and 31)

1. Remove the two B screws and the two C screw attaching
2. Pull out the gear shaft A upward.
3. Remove the motor belt.

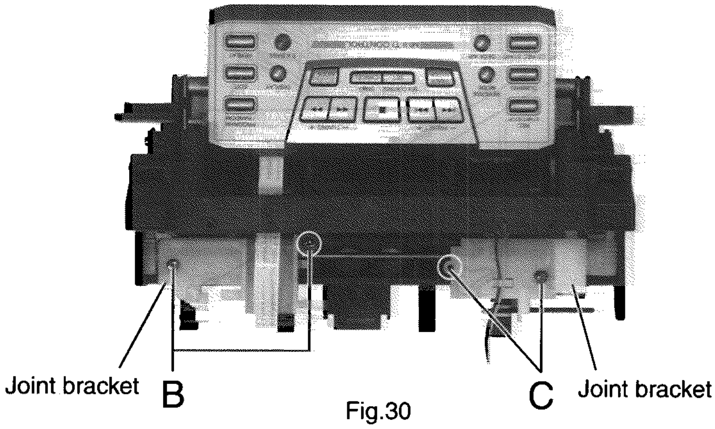

Joint bracket
B
C
Joint bracket

Fig.30

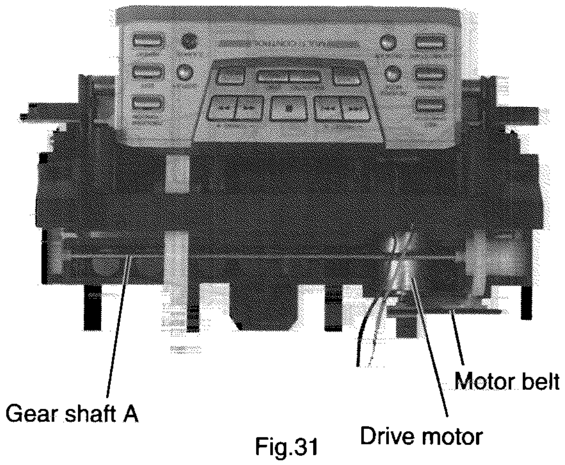

Gear shaft A
Motor belt
Drive motor

Fig.31

≪CD Changer Mechanism Type:VC3 Section≫

■Removing the CD Servo control board (See Fig.1)

1.Remove the metal cover.
2.Remove the CD changer mechanism assembly.
3.From bottom side the CD changer mechanism assembly, remove the two screws 1 retaining the CD servo control board.
4.Absorb the four soldered positions "M" of the right and left motors with a soldering absorber.
5.Pull out the earth wire on the CD changer mechanism assembly.
6.The two screws A is removed and C.B.holder is detached.
7.Disconnect the connector CN854 on the CD servo control board.
8.Disconnect the card wire CN601 and the connector CN801 on the CD servo control board.

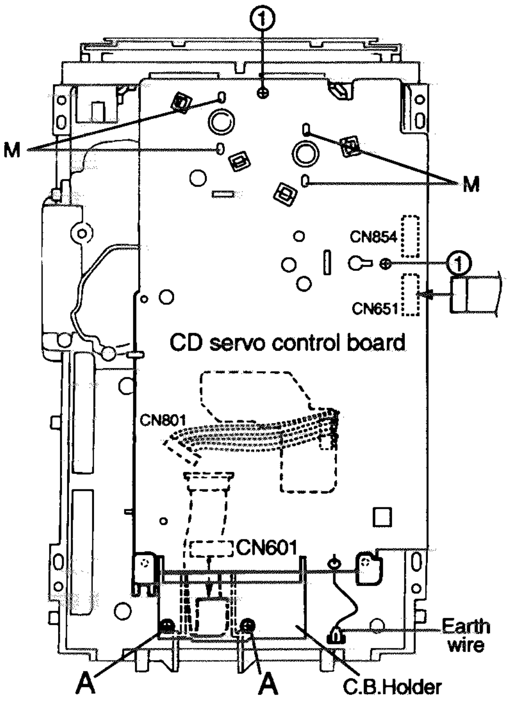

①
M
M
CN854
①
CN651
CD servo control board
CN801
CN601
Earth wire
A
A
C.B.Holder

Fig.1

■Removing the CD tray assembly (See Fig.2~4)

1. Remove the front panel assembly.
2. Remove the CD changer mechanism assembly.
3. Remove the CD Servo control board.
4. From the T.bracket section "B" and clamper base section "C" , remove both of the edges fixing the rod(See Fig.2 and 3).
5. Remove the screw 2 retaining the Disc stopper (See Fig.3).
6. Remove the three screws 3 retaining the T.bracket (See Fig.3).
7. Remove the screws 4 retaining the clamper assembly (See Fig.3).
8. From the left side face of the chassis assembly, remove the one screw 5 retaining both of the return spring and lock lever(See Fig. 4).
9. By removing the pawl at the section "D" fixing the return spring, dismount the return spring(See Fig.4).
10. Remove the three lock levers(See Fig.4).

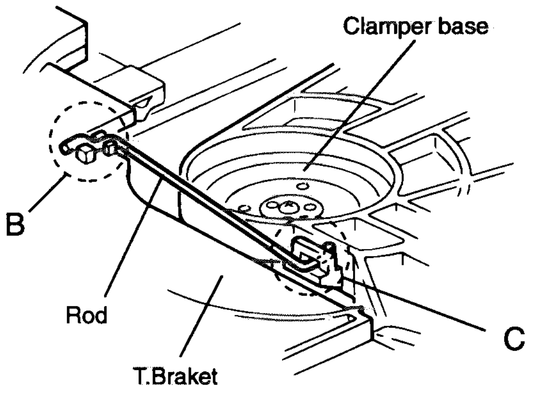

Clamper base
B
Rod
C
T.Braket

Fig.2

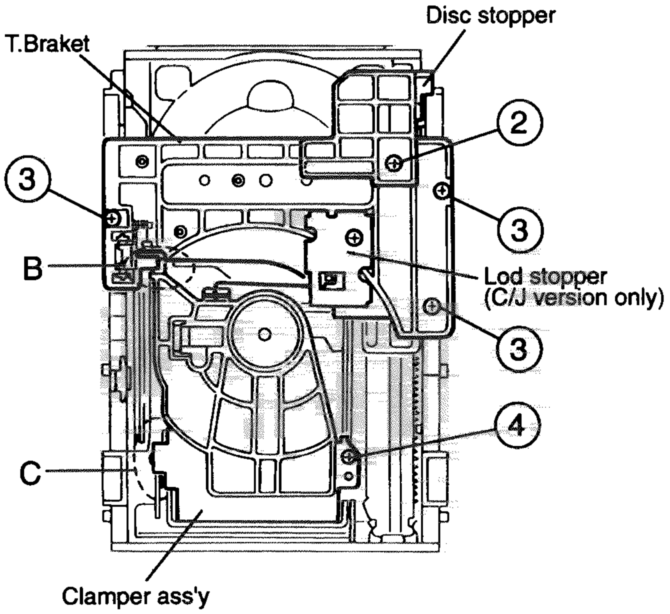

Disc stopper
T.Braket
②
③
③
B
Lod stopper
(C/J version only)
③
④
C
Clamper ass'y

Fig.3

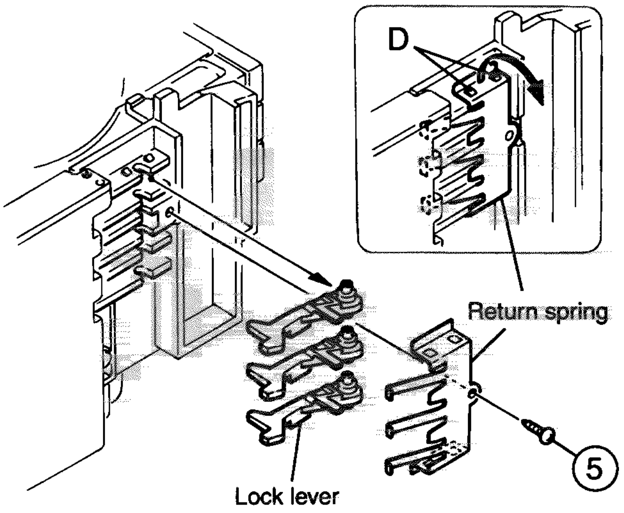
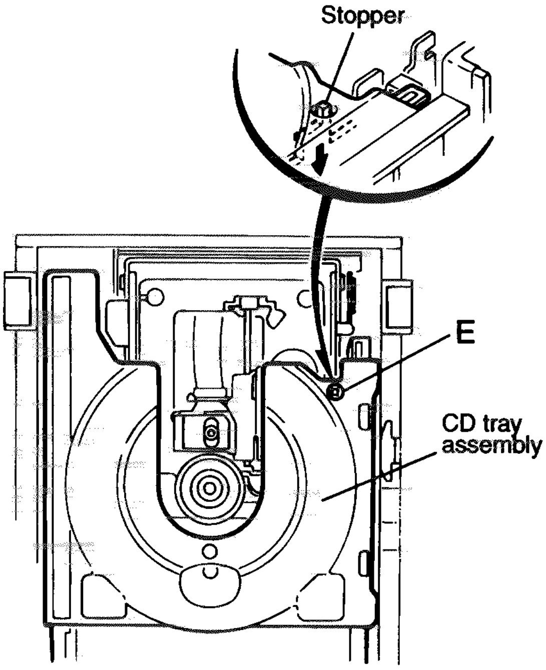

D
Return spring
⑤
Lock lever

Fig.4

11. Check whether the lifter unit stopper has been caught into the hole at the section "E" of CD tray assembly as shown in Fig.5.
12. Make sure that the driver unit elevator is positioned as shown in Fig.6 from to the second or fifth hole on the left side face of the CD changer mechanism assembly.

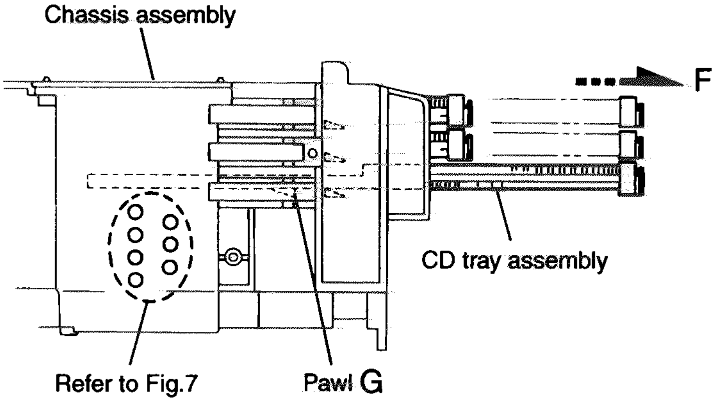
[Caution] In case the driver unit elevator is not at above position, set the elevator to the position as shown in Fig.7 by manually turning the pulley gear as shown in Fig.8.

13. Manually turn the motor pulley in the clockwise direction until the lifter unit stopper is lowered from the section "E" of CD tray assembly(See Fig.8).
14. Pull out all of the three stages of CD tray assembly in the arrow direction "F" until these stages stop (See Fig.6).
15. At the position where the CD tray assembly has stopped, pull out the CD tray assembly while pressing the two pawls "G and G" on the back side of CD tray assembly(See Fig.9). In this case, it is easy to pull out the assembly when it is pulled out first from the stage CD tray assembly.



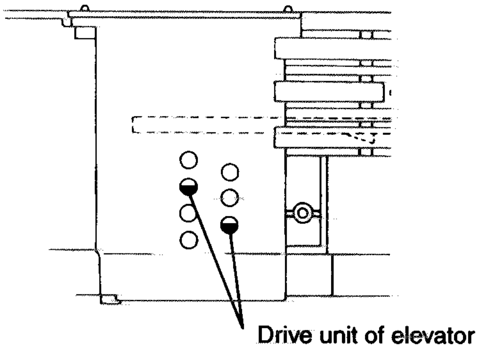
Stopper
E
CD tray assembly

Fig.5



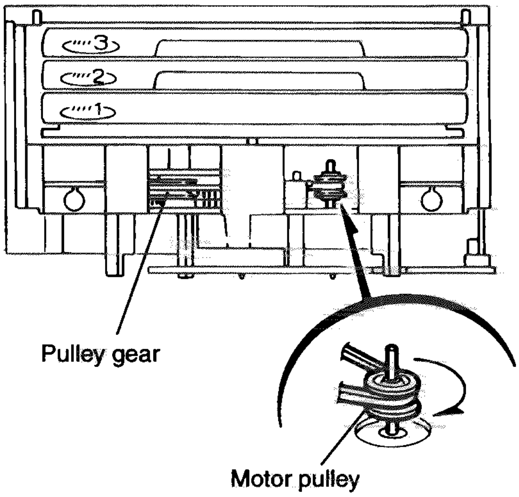
Chassis assembly
F
CD tray assembly
Refer to Fig.7
Pawl G

Fig.6



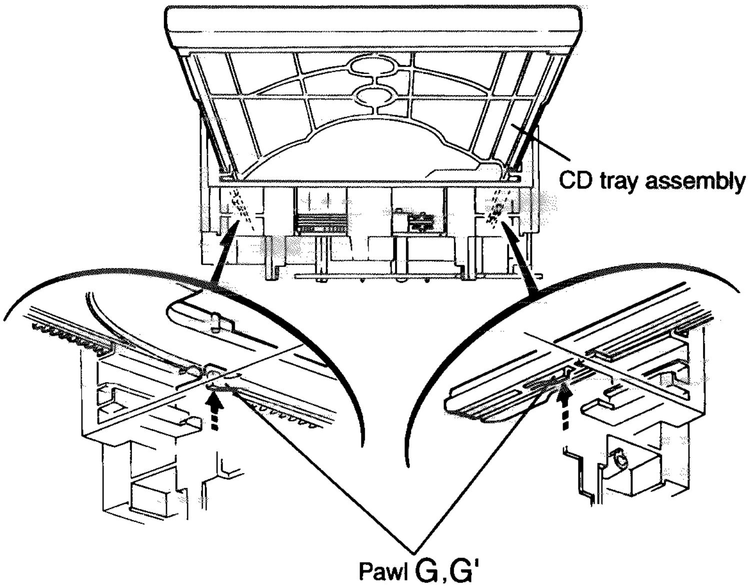
Drive unit of elevator

Fig.7



3
2
1
Pulley gear
Motor pulley

Fig.8



CD tray assembly
Pawl G,G'

Fig.9

■Removing the CD loading mechanism assembly(See Fig.10)

1. While turning the cams R1 and R2 assembly in the arrow direction "H" , align the shaft "I" of the CD loading mechanism assembly to the position shown in
2. Fig.10.
Remove the four screws 6 retaining the CD loading mechanism assembly.

■Removing the CD traverse mechanism (See Fig.11 and 12)

1. For dismounting only the CD traverse mechanism without removing the CD loading mechanism assembly, align the shaft "J" of the CD loading mechanism assembly to the position shown Fig.11 while turning the cam R1 and R2 assembly in the arrow direction "K" .
2. By raising the CD loading mechanism assembly in the arrow direction "L" , remove the assembly from the lifter unit

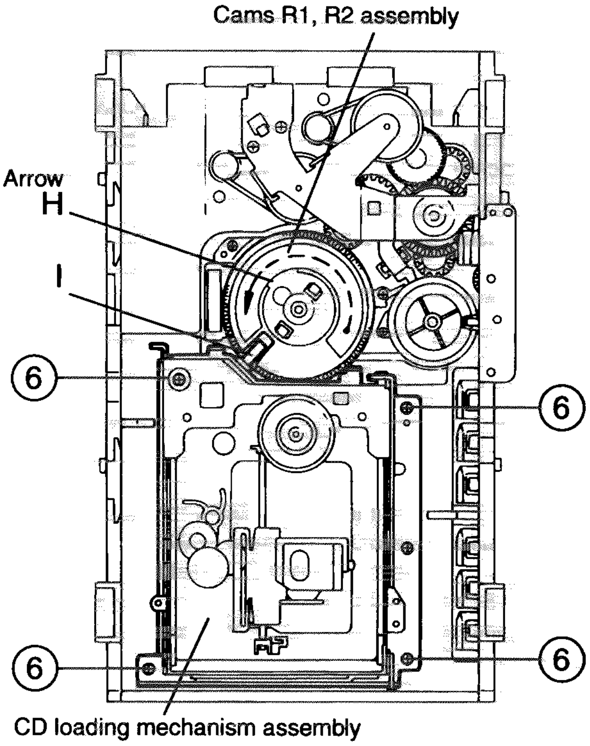

Cams R1, R2 assembly
Arrow
H
I
⑥
⑥
⑥
⑥
CD loading mechanism assembly

Fig.10

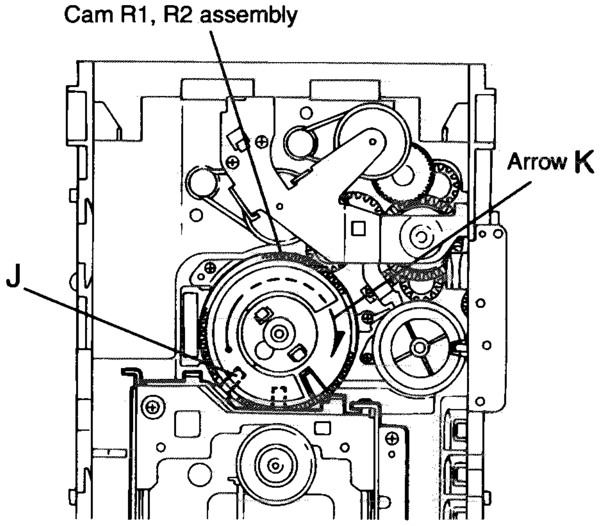

Cam R1, R2 assembly
Arrow K
J

Fig.11

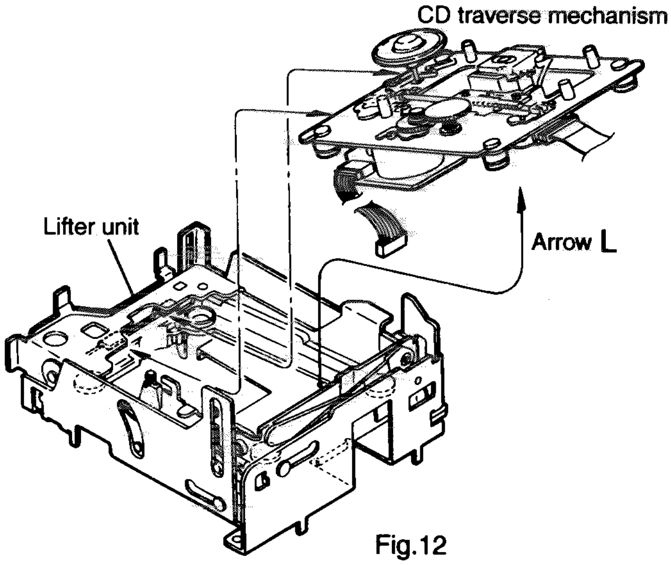

CD traverse mechanism
Lifter unit
Arrow L

Fig.12

■ Removing the CD pick unit (See Fig.13)

1. Move the cam gear in the arrow direction a . Then, the CD pickup unit will be moved in the arrow direction b .
2. According to the above step, shift the CD pickup unit to the center position.
3. While pressing the stopper retaining the shaft in the arrow direction c , pull out the shaft in the arrow direction d .
4. After dismounting the shaft from the CD pickup unit, remove the CD pickup unit

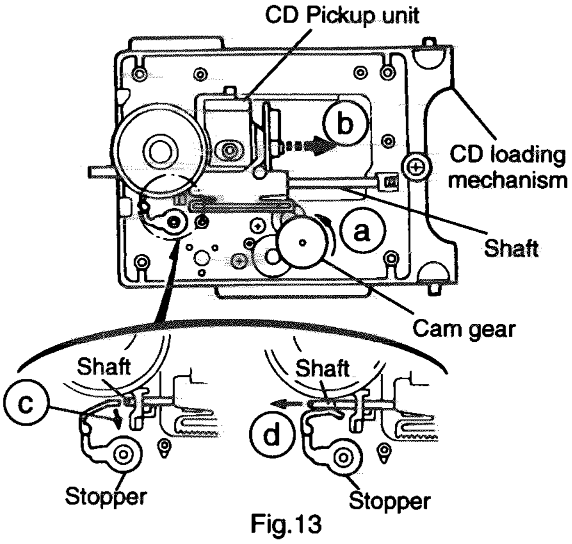

CD Pickup unit
ⓑ
CD loading mechanism
ⓐ
Shaft
Cam gear
Shaft
Shaft
ⓒ
ⓓ
Stopper
Stopper

Fig.13

■ Removing the cam unit (See Fig.14 ~17)

1. Remove the CD loading mechanism assembly.
2. While turning the cam gear L, align the pawl "N" position of the drive unit to the notch position(Fig.16) on the cam gear L.
3. Pull out the drive unit and cylinder gear(See Fig.17).
4. While turning the cam gear L, align the pawl "O" position of the select lever to the notch position(Fig.18) on the cam gear L.
5. Remove the four screws 9 retaining the cam unit(cam gear L and cams R1/R2 assembly)(See Fig.18).

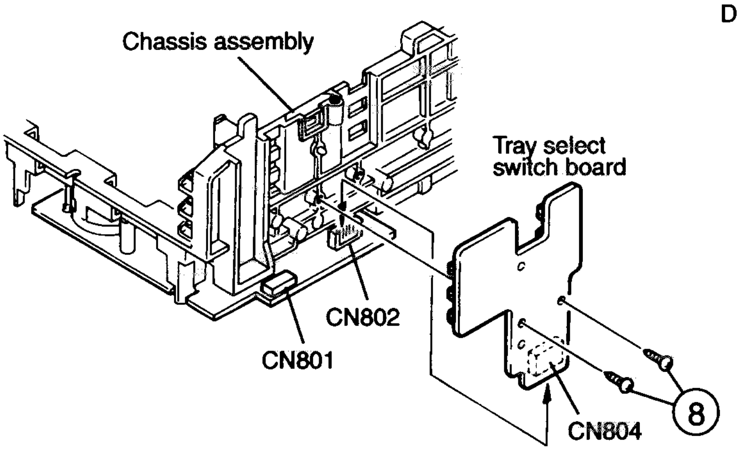

Chassis assembly
Tray select switch board
CN802
CN801
CN804
⑧

Fig.14

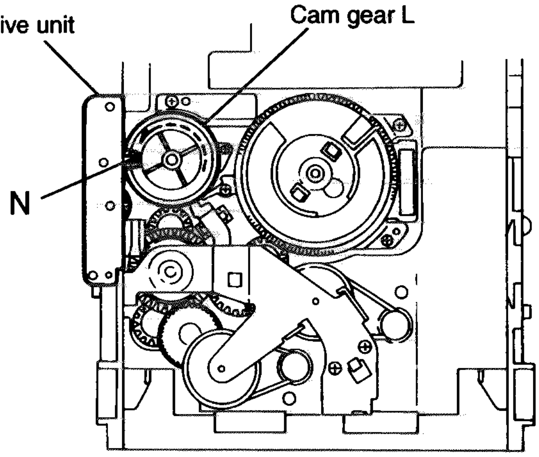

Drive unit
Cam gear L
N

Fig.15

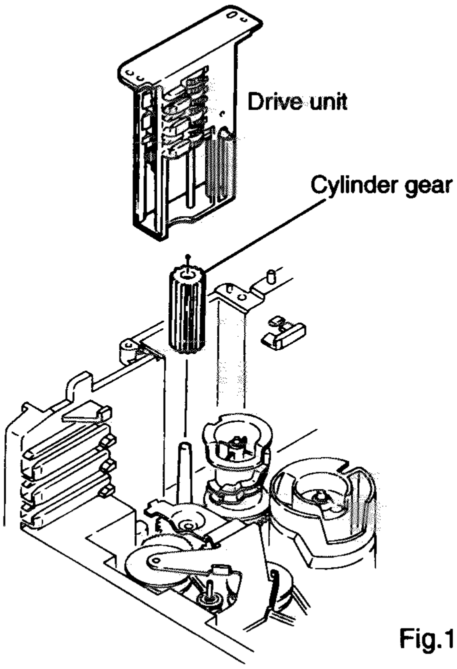

Drive unit
Cylinder gear

Fig.16

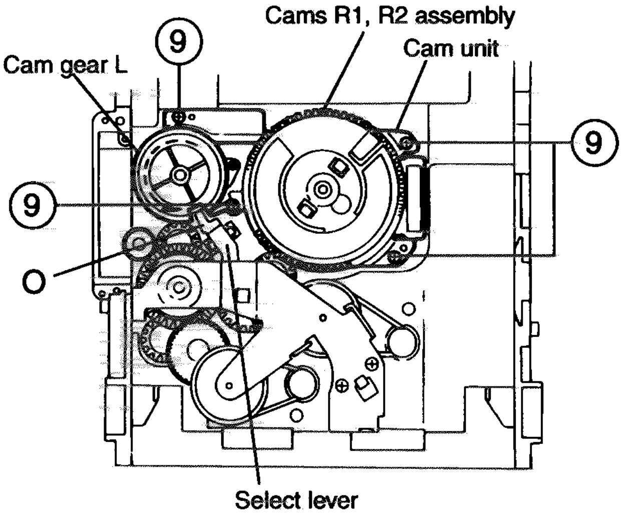

Cams R1, R2 assembly
⑨
Cam unit
Cam gear L
⑨
⑨
O
Select lever

Fig.17

■Removing the actuator motor and belt (See Fig.18~21)

1. Remove the two screws 10 retaining the gear bracket (See Fig.19).
2. While pressing the pawl "P" fixing the gear bracket in the arrow direction, remove the gear bracket (See Fig.19).
3. From the notch "Q section" on the chassis assembly fixing the edge of gear bracket, remove and take out the gear bracket(See Fig. 20).
4. Remove the belts respectively from the right and left actuator motor pulleys and pulley gears(See Fig. 19).
5. After turning over the chassis assembly, remove the actuator motor while spreading the four pawls "R" fixing the right and left actuator motors in the arrow direction(See Fig. 21).

[Note] When the chassis assembly is turned over under the conditions wherein the gear bracket and belt have been removed, then the pulley gear as well as the gear, etc. constituting the gear unit can possibly be separated to pieces. In such a case, assemble these parts by referring to the assembly and configuration diagram in Fig. 22.

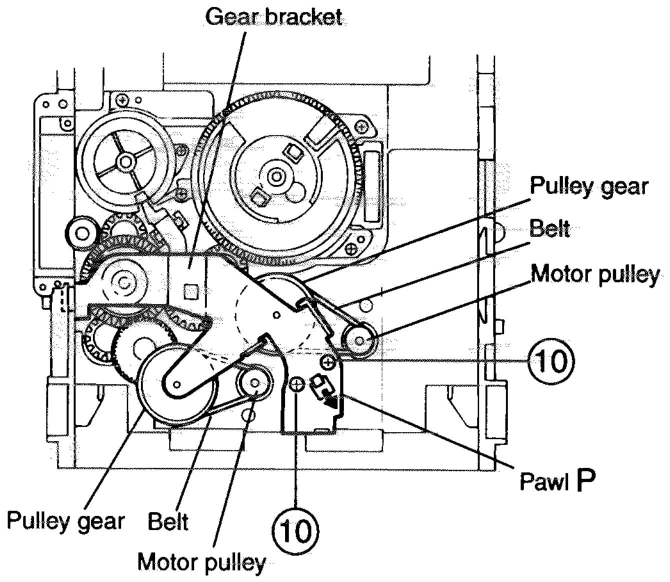

Gear bracket
Pulley gear
Belt
Motor pulley
10
Pawl P
Pulley gear
Belt
Motor pulley
10

Fig.18

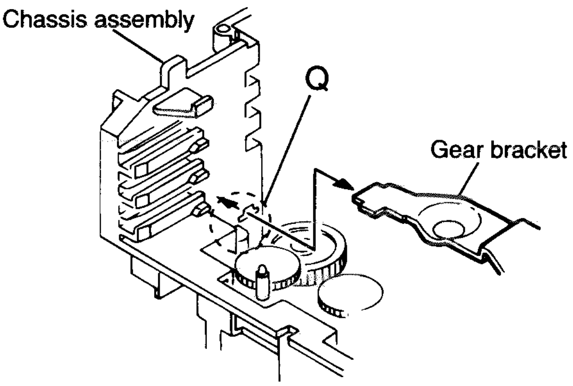

Chassis assembly
Q
Gear bracket

Fig.19

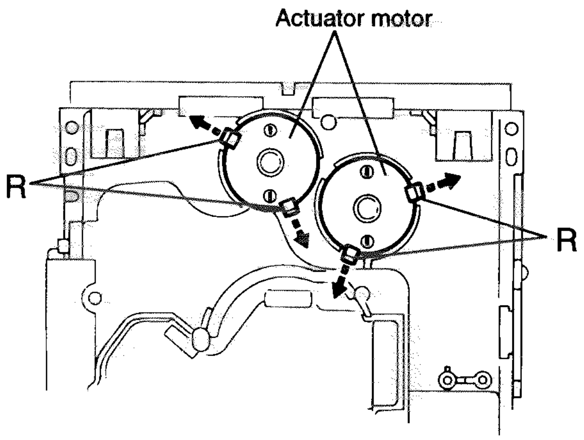

Actuator motor
R
R

Fig.20

Assembly and Configuration Diagram

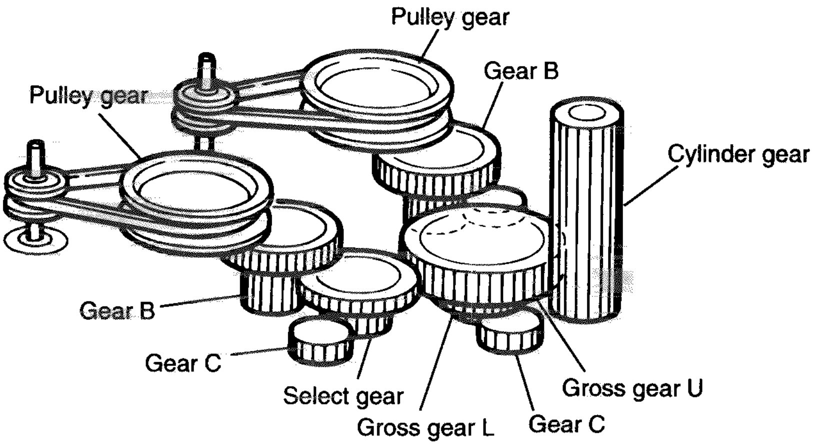

Pulley gear
Pulley gear
Gear B
Cylinder gear
Gear B
Gear C
Select gear
Gross gear L
Gear C
Gross gear U

Fig.21

■Removing the cams R1/R2 assembly and cam gear L(See Fig.22)

1. Remove the slit washer fixing the cams R1 and R2 assembly.
2. By removing the two pawls "S" fixing the cam R1, separate R2 from R1.
3. Remove the slit washer fixing the cam gear L.
4. Pull out the cam gear L from the C.G. base assembly.

■Removing the C.G. base assembly (See Fig.22 and 23)

Remove the three screws 11 retaining the C.G. base assembly.

[Caution] To reassemble the cylinder gear, etc.with the cam unit (cam gear and cans R1/R2 assembly), gear unit and drive unit, align the position of the pawl "N" on the drive unit to that of the notch on the cam gear L. Then, make sure that the gear unit is engaged by turning the cam gear L (See Fig. 24).

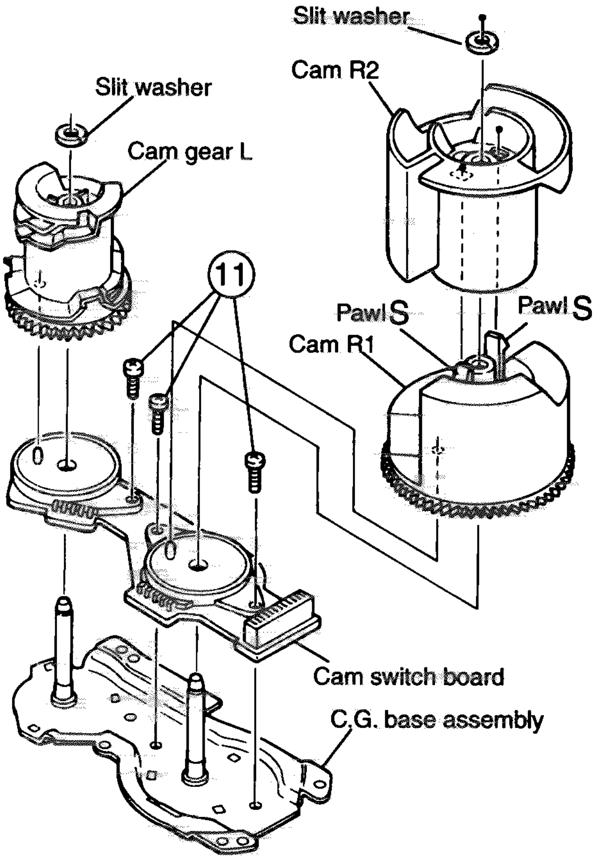

Slit washer
Cam R2
Slit washer
Cam gear L
⑪
Pawl S
Pawl S
Cam R1
Cam switch board
C.G. base assembly

Fig.22

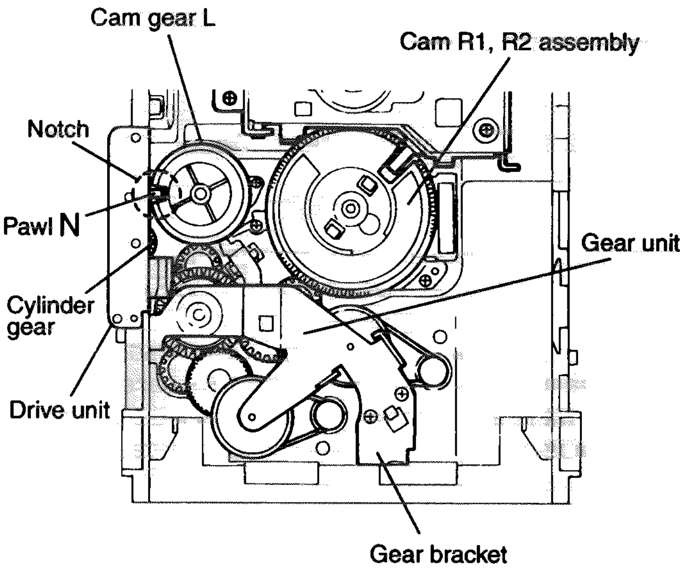

Cam gear L
Cam R1, R2 assembly
Notch
Pawl N
Gear unit
Cylinder gear
Drive unit
Gear bracket

Fig.23

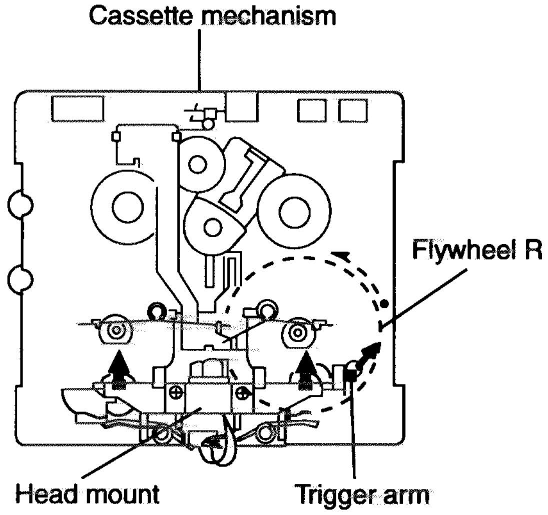
< Cassette Mechanism Section >

■Removing the Playback,Recording and Eraser Heads

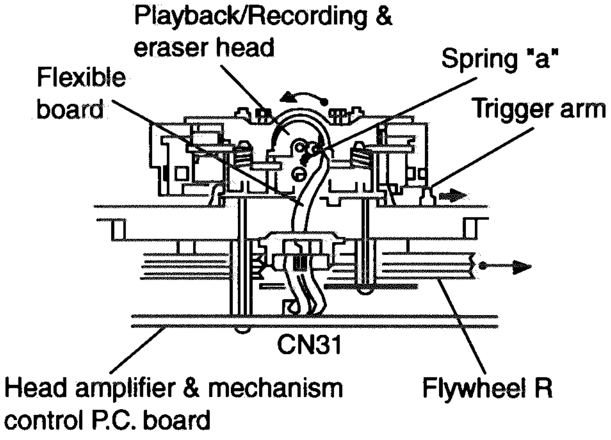
1. While shifting the trigger arms seen on the right side of the head mount in the arrow direction,turn the flywheel R in counterclockwise direction until the head mount has gone out with a click (See Fig 1).
2. When the flywheel R is rotated in counterclockwise direction, the playback head will be turned in counterclockwise direction from the position in Fig 2 to that in Fig 3.
3. At this position, disconnect the flexible P.C.board (outgoing from the playback head) from the connector CN301 on the head amp. and mechanism control P.C. board.
4. After dismounting the FPC holder,remove the flexible P.C.board.
5. Remove the flexible P.C.board from the chassis base.
6. Remove the spring "a" from behind the playback head.
7. Loosen the reversing azimuth screw retaining the playback head.
8. Take out the playback head from the front of the head mount.
9. The recording and eraser heads should also be removed similarly according to Steps 1~8 above.

● Reassembling the Playback, Recording and Eraser Heads

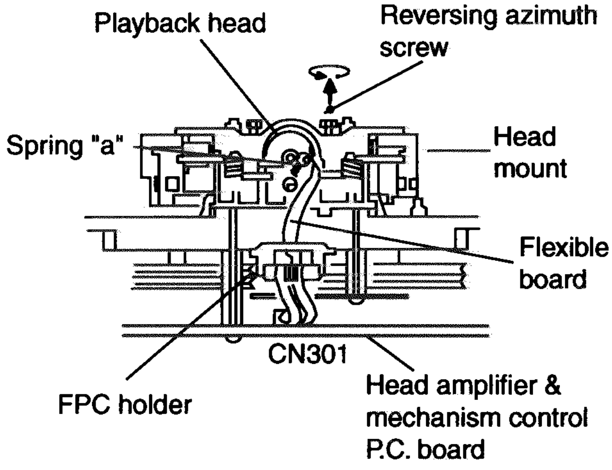
1. Reassemble the playback head from the front of the head mount to the position as shown in Fig 3.
2. Fix the reversing azimuth screw.
3. Set the spring a from behind the playback head.
4. Attach the flexible P.C.board to the chassis base, and fix it with the FPC holder as shown in Fig 3.
5. The recording and eraser heads should also be reassembled similarly according to Steps 1~4 above.


Cassette mechanism
Flywheel R
Head mount
Trigger arm

(Mechanism A side)


Playback/Recording & eraser head
Flexible board
Spring "a"
Trigger arm
CN31
Head amplifier & mechanism control P.C. board
Flywheel R

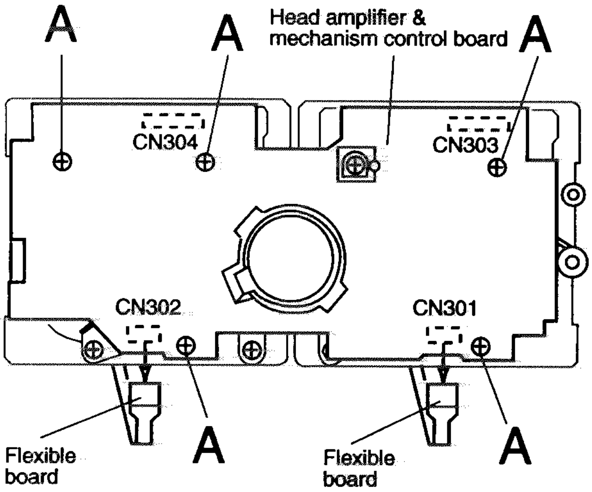
(Mechanism A side)


Playback head
Reversing azimuth screw
Spring "a"
Head mount
Flexible board
CN301
FPC holder
Head amplifier & mechanism control P.C. board

(Mechanism B side)

Removing the head Amp.and Mechanism Control P.C.Board (See Fig 4)

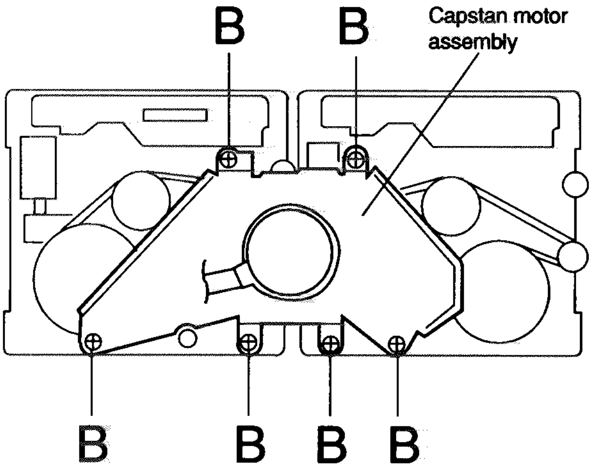
1. Remove the cassette mechanism assembly.
2. After turning over the cassette mechanism assembly,remove the five screws "A" retaining the head amp. and mechanism control P.C. board
3. Disconnect the connectors CN303 and CN304 on the P.C.Board and the connectors CN1 on both the right and left side reel pulse P.C.Boards.
4. When necessary, remove the 4pin parallel wire soldered to the main motor

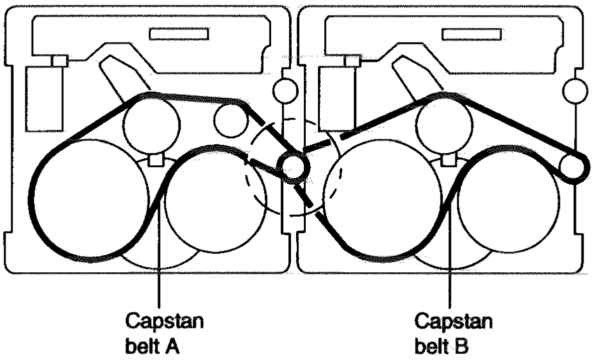

A
A
Head amplifier & mechanism control board
A
CN304
CN303
CN302
CN301
Flexible board
A
Flexible board
A

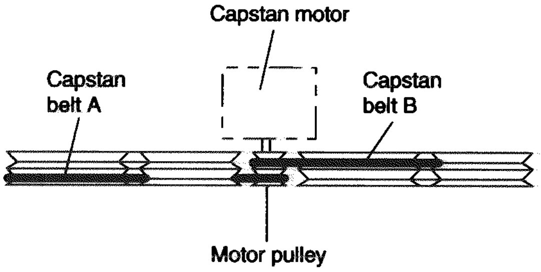
Removing the Capstan Motor Assembly

1. Remove the six screws "B" retaining capstan motor assembly (See Fig 5).
2. While raising the capstan motor, remove the capstan belts A and B respectively from the motor pulley (See Fig 6).

Caution 1: Be sure to handle the capstan belts so carefully that these belts will not be stained by grease and other foreign matter. Moreover, these belts should be hand while referring to the capstan belt hanging method.

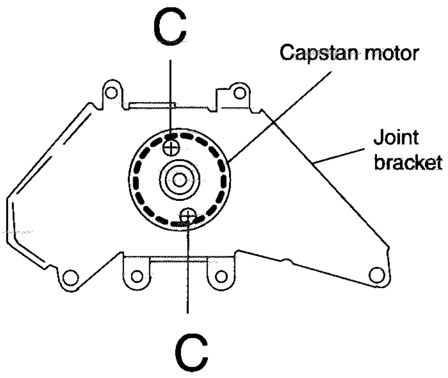

B
B
Capstan motor assembly
B
B
B
B


Capstan belt A
Capstan belt B


Capstan motor
Capstan belt A
Capstan belt B
Motor pulley

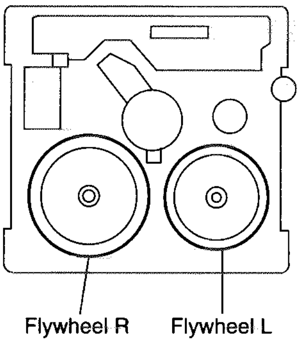
■Removing the Capstan Motor (See Fig 8)

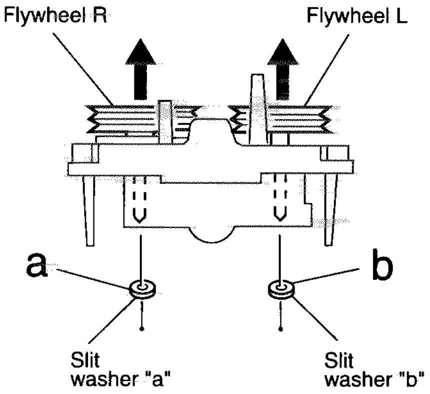
From the joint bracket, remove the two screws "C" retaining the capstan motor.


C
Capstan motor
Joint bracket
C

■Removing the Flywheel (See Fig 9.10)

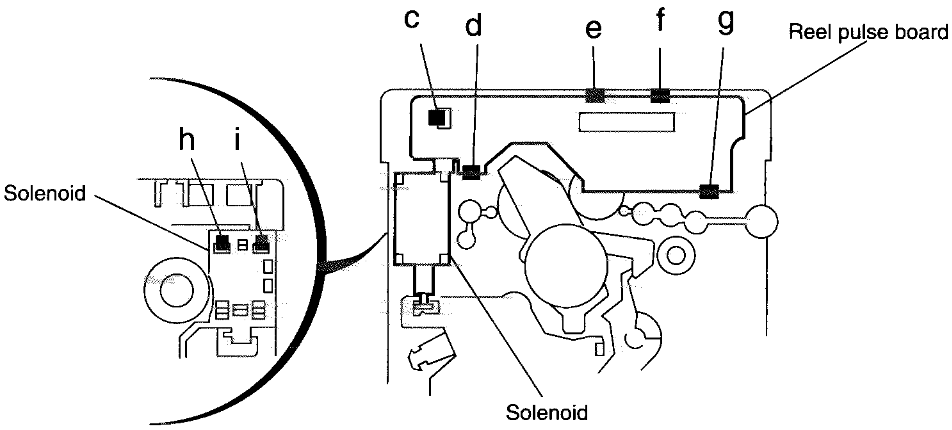
1. Remove the head amp. and mechanism control P.C.Board.
2. Remove the capstan motor assembly.
3. After turning over the cassette mechanism, remove the slit washers "a" and "b" fixing the capstan shafts R and L, and pull out the flywheels R and L respectively from behind the cassette mechanism.


Flywheel R
Flywheel L

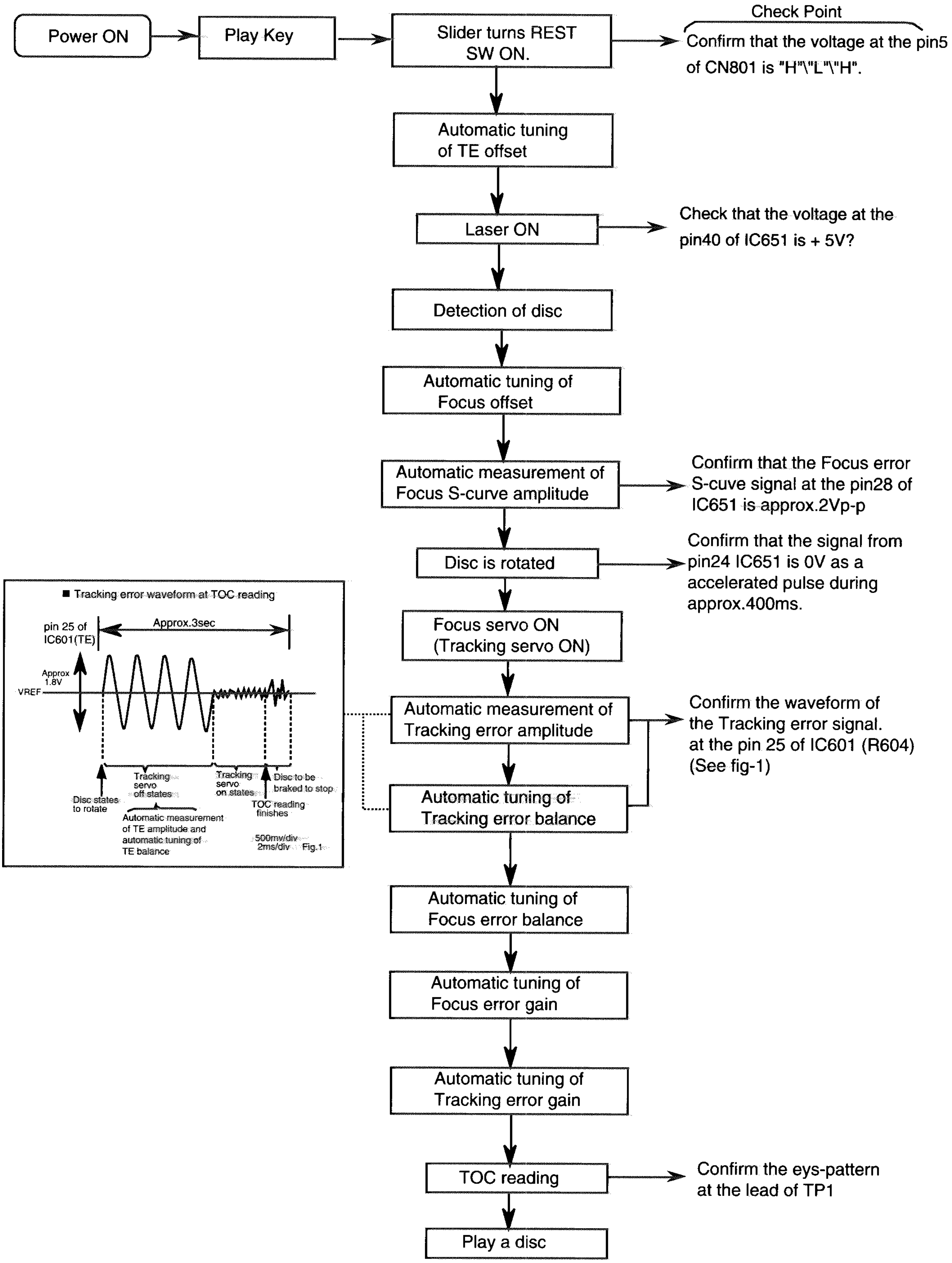

Flywheel R
Flywheel L
a
b
Slit washer "a"
Slit washer "b"

■Removing the Reel Pulse P.C.Board and Solenoid (See Fig 11)

1. Remove the five pawls (c,d,e,f,g) retaining the reel pulse P.C.Board.
2. From the surface of the reel pulse P.C.Board parts, remove the two pawls "h" and "i" retaining the solenoid.


c
d
e
f
g
Reel pulse board
h
i
Solenoid
Solenoid

Flow of Functional Operation Until TOC Read


Power ON
Play Key
Slider turns REST SW ON.
Automatic tuning of TE offset
Laser ON
Detection of disc
Automatic tuning of Focus offset
Automatic measurement of Focus S-curve amplitude
Disc is rotated
Focus servo ON (Tracking servo ON)
Automatic measurement of Tracking error amplitude
Automatic tuning of Tracking error balance
Automatic tuning of Focus error balance
Automatic tuning of Focus error gain
Automatic tuning of Tracking error gain
TOC reading
Play a disc
Check Point
pin 25 of IC601(TE)
Approx.3sec
Approx 1.8V
VREF
Tracking servo off states
Tracking servo on states
Disc to be braked to stop
Disc states to rotate
TOC reading finishes
Automatic measurement of TE amplitude and automatic tuning of TE balance
500mv/div
2ms/div

Check Point

Confirm that the voltage at the pin5 of CN801 is "H"\"L"\"H".

Check that the voltage at the pin40 of IC651 is + 5V?

Confirm that the Focus error S-cuve signal at the pin28 of IC651 is approx.2Vp-p

Confirm that the signal from pin24 IC651 is 0V as a accelerated pulse during approx.400ms.

Confirm the waveform of the Tracking error signal. at the pin 25 of IC601 (R604) (See fig-1)

Confirm the eys-pattern at the lead of TP1

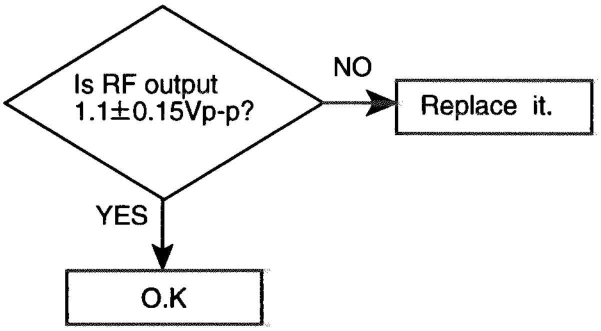
■ Tracking error waveform at TOC reading

Fig.1

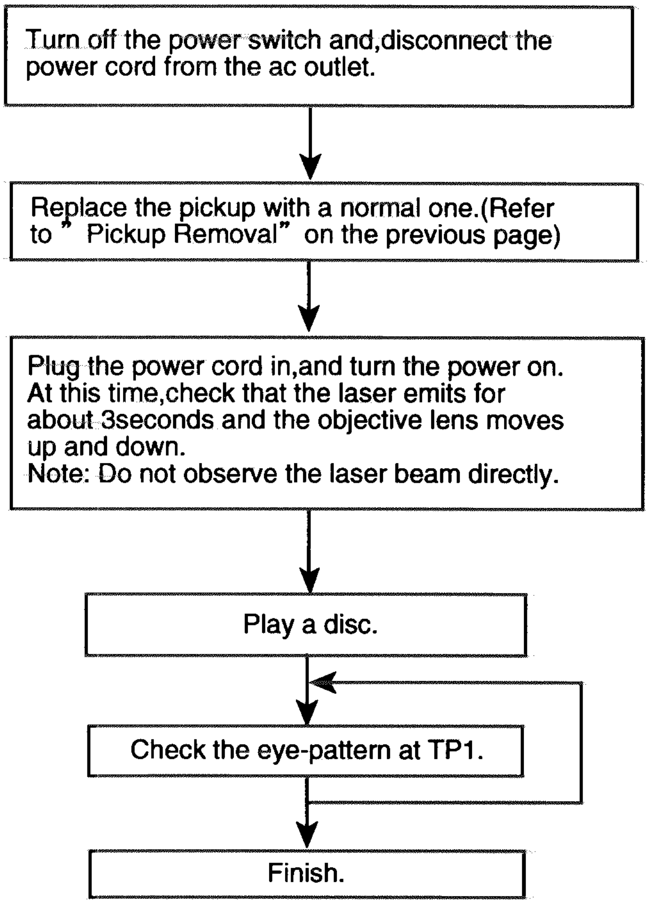
Maintenance of Laser Pickup

(1) Cleaning the pick up lens
Before you replace the pick up, please try to clean the lens with a alcohol soaked cotton swab.

(2) Life of the laser diode
When the life of the laser diode has expired, the following symptoms will appear.
(1) The level of RF output (EFM output:amplitude of eye pattern) will below.



Replacement of Laser Pickup



Turn off the power switch and,disconnect the power cord from the ac outlet.

Replace the pickup with a normal one.(Refer to " Pickup Removal" on the previous page)

Plug the power cord in,and turn the power on. At this time,check that the laser emits for about 3seconds and the objective lens moves up and down.
Note: Do not observe the laser beam directly.

Play a disc.

Check the eye-pattern at TP1.

Finish.

(3) Semi-fixed resistor on the APC PC board The semi-fixed resistor on the APC printed circuit board which is attached to the pickup is used to adjust the laser power.Since this adjustment should be performed to match the characteristics of the whole optical block, do not touch the semi-fixed resistor.
If the laser power is lower than the specified value,the laser diode is almost worn out, and the laser pickup should be replaced.
If the semi-fixed resistor is adjusted while the pickup is functioning normally,the laser pickup may be damaged due to excessive current.

Adjustment Procedures

Measurement Instruments Required for Adjustment

1. Low frequency oscillator,
   This oscillator should have a capacity to output 0dBs to 600Ω at an oscillation frequency of 50Hz-20kHz.
2. Attenuator impedance : 600Ω
3. Electronic voltmeter
4. Frequency counter
5. Wow flutter meter
6. Test tape
   VTT712 : For Tape speed and wow flutter (3kHz)
   VTT724 : For Reference level (1kHz)
   TMT7036 : For Head angle(10kHz),Play back frequency characteristics(1kHz),and dubbing frequency characteristics(63,1,10kHz)
   Because of frequency-mixed tape with 63,1k,10k and 14kHz(250nWb/m -24dB).
   Use this tape together with a filter.
7. Blank tape
   TAPE Ⅰ : AC-225, TAPE Ⅱ : AC-514
8. Torque gauge : For play and back tension
   Forward ; TW2111A, Reverse ; TW2121A
   Fast Forward and Rewind ; TW2231A
9. Test disc
   : CTS-1000(12cm),GRG-1211(8cm)
   GMT-9900(CD-G),MMCD-VCD01(VIDEO-CD)
10. Jitter meter

Measurement Conditions

Power supply voltage
AC110/127/220/230-240V(50Hz) : Ver.U,US,UX,UT,UY
AC220V(60Hz) : Ver.UP
AC120V(60Hz) : Ver.J,C
AC240V(50Hz) : Ver.A

Measurement
output terminal : Speaker out
:TP101(Mesuring for TUNER/DECK/CD)
:Dummy load 6Ω

Radio input signal

AM modulation frequency : 400Hz
Modulation factor : 30%
FM modulation frequency : 400Hz
Frequency displacement : 22.5kHz

Frequency Range

AM	530kHz~1710kHz	J,C
	531kHz~1710kHz	except J,C,A,UX
	531kHz~1602kHz	only UX
	522kHz~1629kHz	only A
FM	87.5MHz~108MHz	

Standard measurement positions of volume and switch

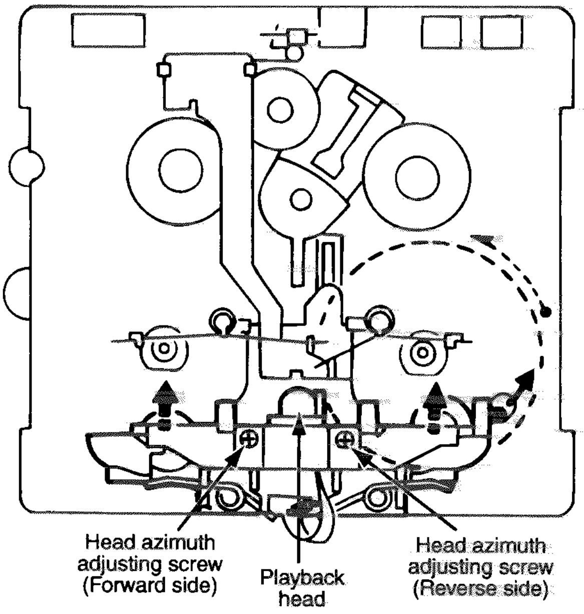
Power : Standby (Light STANDBY Indicator)
SA-Bass : OFF
Sound mode : OFF
Main VOL. : 0 Minimum
Travers mecha set position : Disc 1
Mic MIX VOL : MAX
KARAOKE/ECHO : OFF (only U type)

Precautions for Measurement

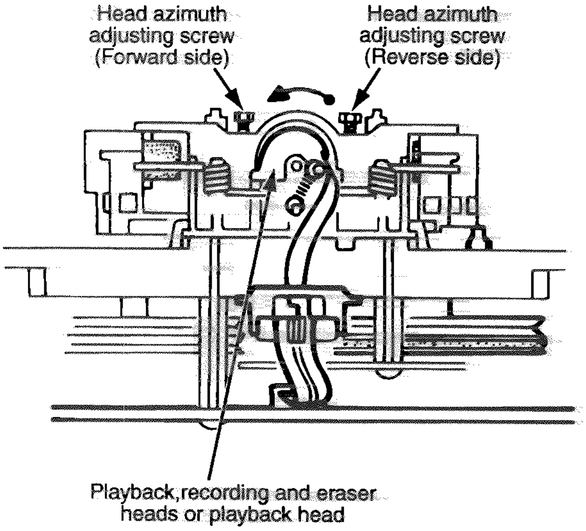
1. Apply 30pF and 33kΩ to the IF sweeper output side and 0.082μF and 100kΩ in series to the sweeper input side.
2. The IF sweeper output level should be made as low as possible within the adjustable range.
3. Since the IF sweeper is a fixed device, there is no need to adjust this sweeper.
4. Since a ceramic oscillator is used, there is no need to perform any MPX adjustment.
5. Since a fixed coil is used, there is no need to adjust the FM tracking.
6. The input and output earth systems are separated. In case of simultaneously measuring the voltage in both of the input and output systems with an electronic voltmeter for two channels, therefore, the earth should be connected particularly.
7. In the case of BTL connection amplifier, the minus terminal of speaker is not for earthing. Therefore, be sure not to connect any other earth terminal to this terminal. This system is of an OTL system.

■Arrangement of Adjusting Positions

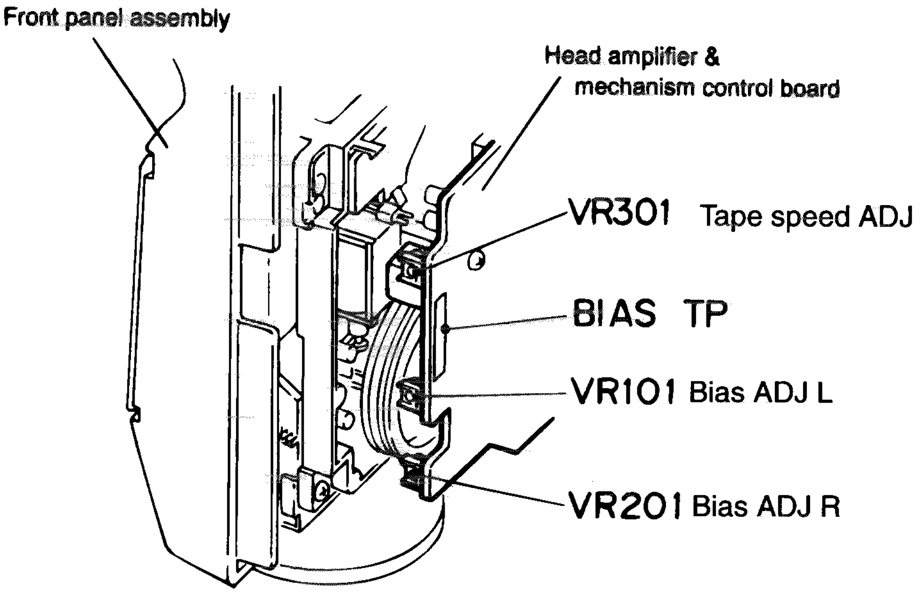
Cassette mechanism section (Mechanism A section)


Head azimuth adjusting screw (Forward side)
Playback head
Head azimuth adjusting screw (Reverse side)

Cassette mechanism section (Back side)


Head azimuth adjusting screw (Forward side)
Head azimuth adjusting screw (Reverse side)
Playback,recording and eraser heads or playback head

Cassette Mechanism Unit Section


Front panel assembly
Head amplifier & mechanism control board
VR301 Tape speed ADJ
BIAS TP
VR101 Bias ADJ L
VR201 Bias ADJ R

■ Tape Recorder Section

Items	Measurement conditions	Measurement method	Standard values	Adjusting positions
Confirmation of head angle	Test tape :TMT7036(10kHz) Measurement output terminal :Speaker terminal Speaker R (Load resistor:3Ω) :Headphone terminal	1.Playback the test tape TMT7036(10kHz). 2.With the playback mechanism or recording & playback mechanism, adjust the head azimuth screw so that the forward and reverse output levels become maximum.After adjustment,lock the head azimuth at least by half a turn. 3.In either case,this adjustment should be performed in both the forward and reverse directions with the head azimuth screw.	Maximum output	Adjust the head azimuth screw only when the head has been changed.
Confirmation of tape speed	Test tape :VTT712(3kHz) or TMT7036(3kHz) Measurement output terminal :Headphone terminal	<Constant speed> Adjust VR301 so that the frequency counter reading becomes 3,000Hz±60Hz when playing back the test tape VTT712(3kHz)with the playback mechanism or playback and recording mechanism after ending forward winding of the tape.	Tape speed of decks (A and B) :3,000Hz ±60Hz	VR301

■ Reference Values for Confirmation items

Items	Measurement conditions	Measurement method	Standard values	Adjusting positions
Double tape speed	Test tape :TMT7036(10kHz) Measurement output terminal :Speaker terminal Speaker R (Load resistance:3Ω) measurement output terminal :Headphone terminal	After setting to the double speed motor, confirm that the frequency counter reading becomes 4,800+400/-300Hz when the test tape VTT712 (3kHz) has been play back with the playback mechanism.	4,800+400/ -300Hz	Playback mechanism side
Difference between the forward and reverse speed. P.mecha and R/P mecha speed		When the test tape VTT712(3kHz) has been played back with the playback mechanism or recording and playback mechanism at the beginning of forward winding, the frequency counter reading of the difference between both of the mechanisms should be 6.0Hz or less.	60Hz or less	Both the playback and recording & playback mechanism
Wow & flutter	Test tape :TMT7036(10kHz) Measurement output terminal :Headphone terminal	When the test tape VTT712(3kHz) has been played back with the playback mechanism or recording and playback mechanism at the beginning of forward winding the frequency counter reading of wow & flutter should be 0.25% or less(WRMS).	with in 0.25% JIS(WTD)	Both the playback and recording & playback mechanism

■ Electrical Performance

Items	Measurement conditions	Measurement method	Standard values	Adjusting positions
Adjustment of recording bias current (Reference value)	*Mode : Forward or reverse mode *Recording mode *Test tape :AC-514 and AC-225 Measurement output terminal :Both recording and headphone terminals	1.With the recording and playback mechanism, load the test tapes(AC-514 to TYPⅡ and AC-225 to TYP Ⅰ),and set the mechanism to the recording and pausing conditions in advance. 2.After connecting 100Ω in series to the recorder head,measure the bias current with a valve voltmeter at both of the terminals. 3.After resetting the [PAUSE] mode,start recording. At this time,adjust VR101 for LcH and VR201 for RcH so that the recording bias current values become 4.0μA (TYP Ⅰ) and 4.20μA(TYPⅡ).	AC-225 :4.20μA AC-514 :4.0μA	LcH :VR101 RcH :VR201
Adjustment of recording and playback frequency characteristics	Reference frequency :1kHz and 10kHz (REF:-20dB) Test tape :TYPⅡ AC-514 Measurement input terminal :OSC IN	1.With the recording and playback mechanism,load the test tape(AC-514 to TYPⅡ),and set the mechanism to the recording and pausing condition in advance. 2.While repetitively inputting the reference frequency signal of 1kHz and 10kHz from OSC IN, record and playback the test tape. 3.While recording and playing back the test tape in TYPⅡ,adjust VR101 for LcH and VR201 for RcH so that the output deviation between 1kHz and 10kHz becomes -1dB±2dB.	Output deviation between 1kHz and 10kH :-1dB±2dB	LcH :VR101 RcH :VR201

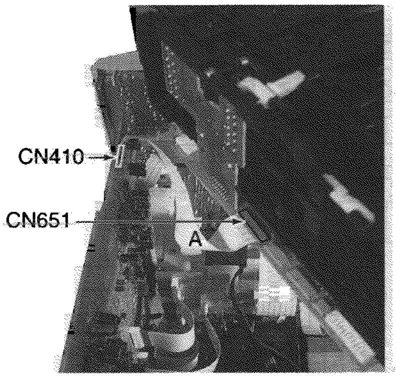
■ Reference Values for Electrical Function Confirmation Items

Items	Measurement conditions	Measurement method	Standard values	Adjusting positions
Recording bias frequency	*Recording and playback side forward or reverse *Test tape :TYPⅡ AC-514 *Measurement terminal BIAS TP on P.C.board	1.While changing over to and from BIAS 1 and 2, confirm that the frequency is changed. 2.With the recording and playback mechanism. load the test tape (AC-514 to TYPⅡ),and set the mechanism to the recording and pausing conditions in advance. 3.Confirm that the BIAS TP frequency on the P.C.board is 100kHz±6kHz.	100kHz +9kHz -7kHz	
Eraser current (Reference value)	*Recording and playback side forward or reverse *Recording mode *Test tape :AC-514 and AC-225 Measurement terminal Both of the eraser head	1.With the recording and playback mechanism, load the test tapes(AC-514 to TYPⅡ and AC-225 to TYP Ⅰ),and set the mechanism to the recording and pausing condition in advance. 2.After setting to the recording conditions,connect 1MΩ in series to the eraser head on the recording and playback mechanism side,and measure the eraser current from both of the eraser terminal.	TYPⅡ :120mA TYP Ⅰ :75mA	

Diagnosis which uses extension wire method

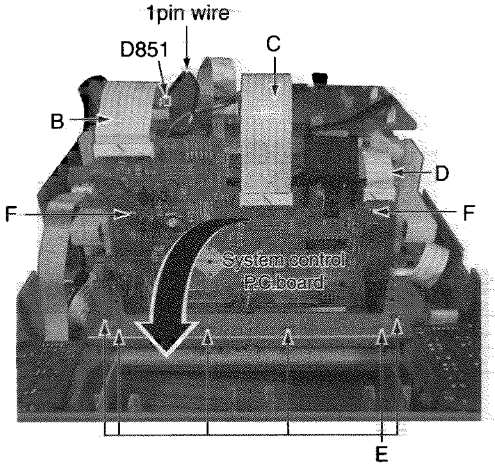
CD Changer mechanism

1.Remove the top cover and CD changer mechanism.
2.The extension wire "A" is connected with CN651 and CN410.


CN410
CN651
A

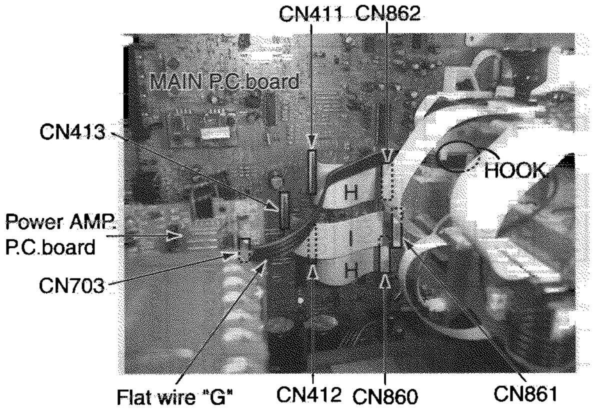
System control P.C.board

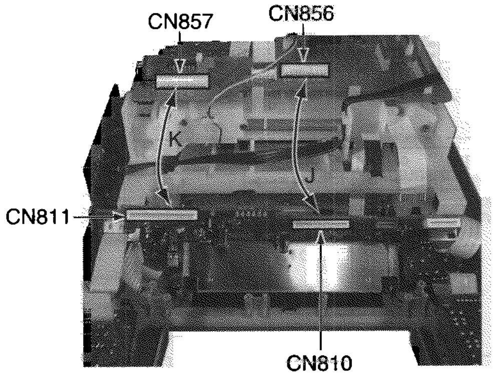
1.Remove the top cover and CD changer mechanism.
2.Remove the front panel assembly.
3.Disconnect the card wire "B","C","D".
4.The 1pin wire is removed from D851
5.Six screws "E" are removed, and the bracket is removed.
6.Two screws "F" on the system control P.C.board are removed, and the system control P.C.board is knocked down forward.
7.The flat wire "G" is connected with CN703 on the Power AMP.P.C.board while remove flat wire "G" from the hook, and extended.
8.Two extension wires "H" are connected with CN860, CN412, and CN862, CN411 respectively.
9.The extension wire "I" is connected with CN861 and CN413.
10.The extension wire "J" is connected with CN856 and CN810.
11.The extension wire "K" is connected with CN857 and CN811.
12.The extension wire "L" is connected with CN306 and CN812.

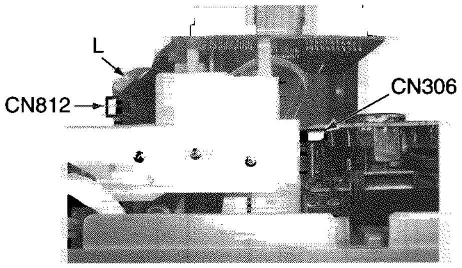

1pin wire
D851
C
B
D
F
F
System control P.C.board
E

Extension wire parts No.

A : VWF1019-45TTA
H : QUQ412-2140CJ
I : QUQ412-1738CJ
J : QUQ412-2120CJ
K : VWF1223-30TTB
L : VWF1211-28TTB

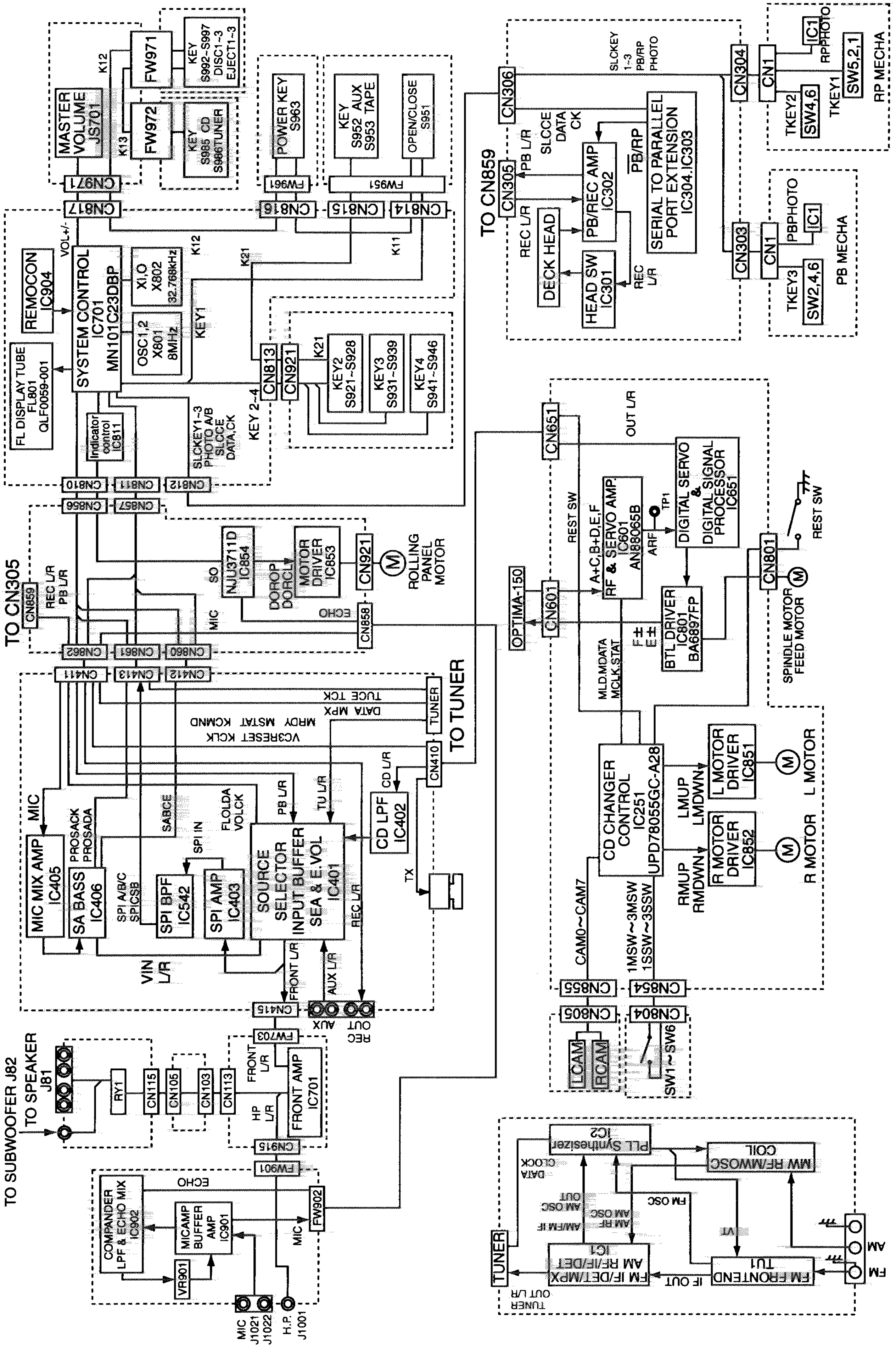

CN411
CN862
MAIN P.C.board
CN413
HOOK
Power AMP. P.C.board
CN703
H
I
H
Flat wire "G"
CN412
CN860
CN861


CN857
CN856
K
J
CN811
CN810


L
CN812
CN306

Right side

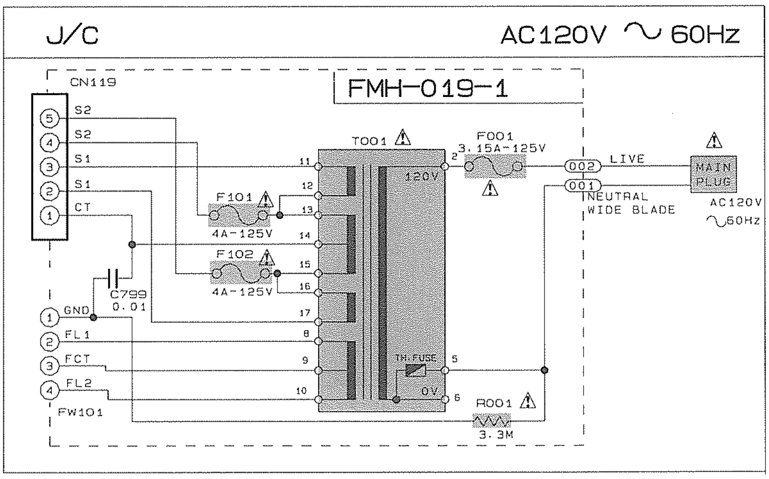
■ Block Diagrams


MASTER VOLUME JS701
FW971
FW972
KEY S992~S997 DISC1~3 EJECT1~3
KEY S985 CD S986TUNER
K12
K13
CN971
CN817
POWER KEY S963
FW961
CN816
KEY S952 AUX S953 TAPE
OPEN/CLOSE S951
FW951
CN815
CN814
REMOCON IC904
SYSTEM CONTROL IC701 MN101C23DBP
X1,O X802 32.768kHz
OSC1,2 X801 8MHz
VOL+/-
K21
K11
KEY1
FL DISPLAY TUBE FL801 QLF0059-001
Indicator control IC811
SLCKEY1~3 PHOTO A/B SLCCE DATA,CK
KEY 2~4
CN813
CN921
KEY2 S921~S928
KEY3 S931~S939
KEY4 S941~S946
CN810
CN811
CN812
CN856
CN857
NJU3711D IC854
SO
DOROP DORCL
MOTOR DRIVER IC853
CN921
ROLLING PANEL MOTOR
M
ECHO
CN858
MIC
TO CN305
CN859
REC L/R PB L/R
CN862
CN861
CN860
CN411
CN413
CN412
TUCE TCK
DATA MPX
MRDY MSTAT KCMND
VC3RESET KCLK
TUNER
TO TUNER
CN410
CD L/R
CD LPF IC402
TU L/R
PB L/R
MIC
PROSACK PROSADA
SABCE
SPI IN
FLOLDA VOLCK
MIC MIX AMP IC405
SA BASS IC406
SPI A/B/C SPICSB
SPI BPF IC542
SPI AMP IC403
SOURCE SELECTOR INPUT BUFFER SEA & E.VOL IC401
TX
REC L/R
VIN L/R
FRONT L/R
AUX L/R
CN415
AUX
REC OUT
FW703
TO SUBWOOFER J82
TO SPEAKER J81
RY1
CN115
CN105
CN103
CN113
FRONT L/R
HP L/R
FRONT AMP IC701
CN915
FW901
ECHO
COMPANDER LPF & ECHO MIX IC902
MICAMP BUFFER AMP IC901
VR901
FW902
MIC
MIC J1021 J1022
H.P. J1001
TO CN859
CN306
CN305
PB L/R
SLCCE DATA CK
SLCKEY 1~3 PB/RP PHOTO
REC L/R
DECK HEAD
PB/REC AMP IC302
HEAD SW IC301
REC L/R
PB/RP
SERIAL TO PARALLEL PORT EXTENSION IC304.IC303
CN304
CN1
IC1
RPPHOTO
TKEY2
SW4,6
TKEY1
SW5,2,1
RP MECHA
CN303
CN1
PBPHOTO
IC1
TKEY3
SW2,4,6
PB MECHA
CN651
OUT L/R
DIGITAL SERVO & DIGITAL SIGNAL PROCESSOR IC651
REST SW
A+C,B+D,E,F
RF & SERVO AMP IC601 AN8806SB
TP1
ARF
CN801
REST SW
OPTIMA-150
CN601
F± E±
BTL DRIVER IC801 BA6897FP
SPINDLE MOTOR FEED MOTOR
M
MLD,MDATA MCLK,STAT
CD CHANGER CONTROL IC251 UPD78055GC-A28
LMUP LMDWN
L MOTOR DRIVER IC851
L MOTOR
RMUP RMDWN
R MOTOR DRIVER IC852
R MOTOR
CAM0~CAM7
1MSW~3MSW 1SSW~3SSW
CN855
CN854
CN805
CN804
LCAM
RCAM
SW1~SW6
PLL Synthesizer IC2
MW RF/MWOSC COIL
CLOCK DATA
AM OSC OUT
AM RF AM OSC
FM OSC
AM/FM IF
VT
TUNER
FM IF/DET/MPX AM RF/IF/DET IC1
IF OUT
FM FRONTEND TU1
TUNER OUT L/R
AM
FM

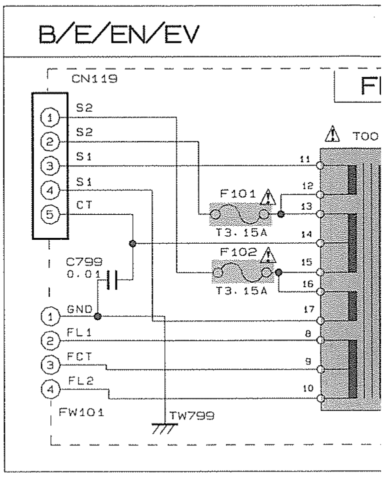
Schematic Diagrams

■ Power Transformer Section

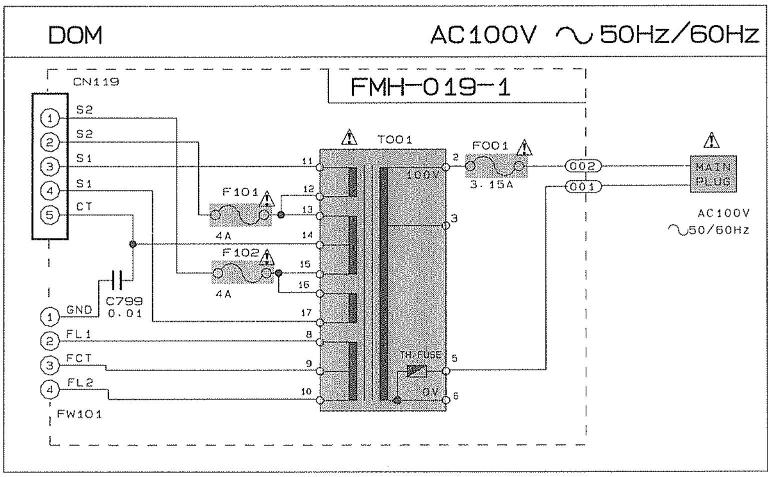
POWER SUPPLY BLOCK


J/C
AC120V ∿ 60Hz
FMH-019-1
CN119
S2
S2
S1
S1
CT
GND
FL1
FCT
FL2
FW101
T001
F001
3.15A-125V
F101
4A-125V
F102
4A-125V
C799
0.01
120V
TH.FUSE
0V
R001
3.3M
002
001
LIVE
NEUTRAL
WIDE BLADE
MAIN PLUG
AC120V
∿60Hz

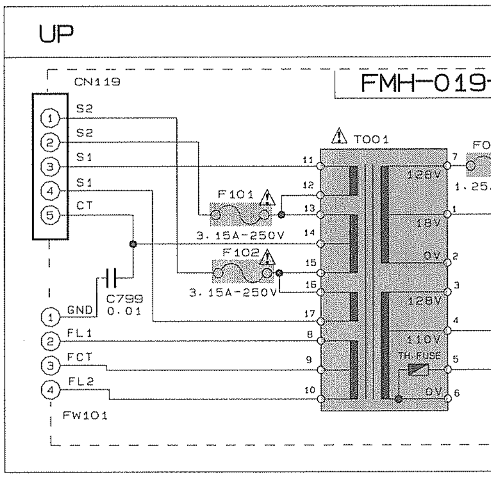
POWER SUPPLY BLOCK


B/E/EN/EV
CN119
S2
S2
S1
S1
CT
GND
FL1
FCT
FL2
FW101
T00
F101
T3.15A
F102
T3.15A
C799
0.01
TW799

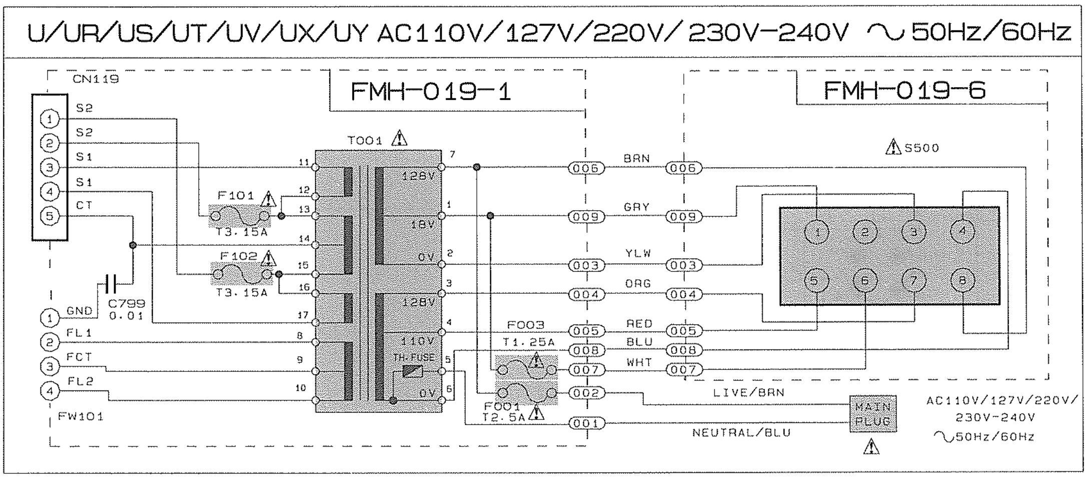
POWER SUPPLY BLOCK


DOM
AC100V ∿ 50Hz/60Hz
FMH-019-1
CN119
S2
S2
S1
S1
CT
GND
FL1
FCT
FL2
FW101
T001
F001
3.15A
F101
4A
F102
4A
C799
0.01
100V
TH.FUSE
0V
002
001
MAIN PLUG
AC100V
∿50/60Hz

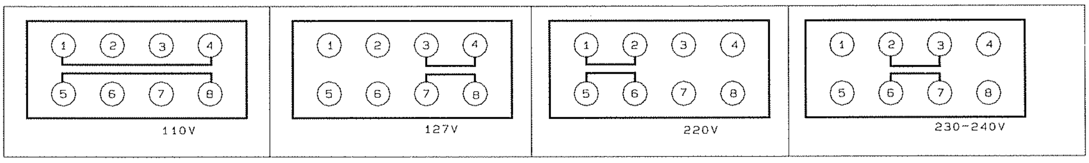
POWER SUPPLY BLOCK


UP
FMH-019
CN119
S2
S2
S1
S1
CT
GND
FL1
FCT
FL2
FW101
T001
F101
3.15A-250V
F102
3.15A-250V
C799
0.01
128V
18V
0V
128V
110V
TH.FUSE
0V

POWER SUPPLY BLOCK


U/UR/US/UT/UV/UX/UY AC110V/127V/220V/230V-240V ∿ 50Hz/60Hz
FMH-019-1
FMH-019-6
CN119
S2
S2
S1
S1
CT
GND
FL1
FCT
FL2
FW101
T001
F101
T3.15A
F102
T3.15A
C799
0.01
128V
18V
0V
128V
110V
TH.FUSE
0V
F003
T1.25A
F001
T2.5A
S500
BRN
GRY
YLW
ORG
RED
BLU
WHT
LIVE/BRN
NEUTRAL/BLU
MAIN PLUG
AC110V/127V/220V/
230V-240V
∿50Hz/60Hz

VOLTAGE SELECTOR LOCATION


110V
127V
220V
230-240V

SHEET NUMBER	M T
1/11	MX-J50/CA CA-MXJ55R/MX-
2/11	MX-J50/CA CA-MXJ55R/MX-
3/11	MX-J50/CA CA-MXJ55R/MX-
4/11	MX-J50/MX-J
5/11	CA-MXJ55R/C
6/11	MX-J5
7/11	MX-J5
8/11	MX-J50/CA CA-MXJ55R/MX-
9/11	MX-J5
10/11	MX-J50/CA CA-MXJ55R/MX-
11/11	MX-J50/CA CA-MXJ55R/MX-

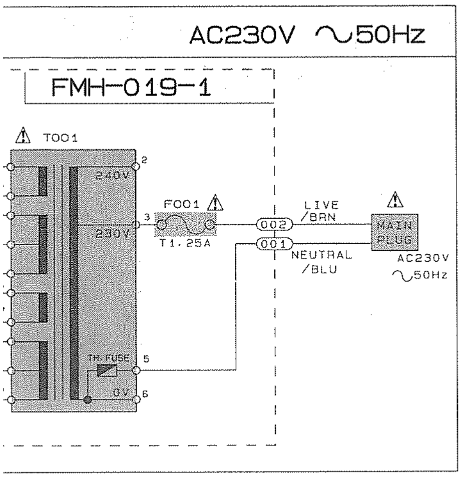
NOTES: MARK [*] IS
DETAILS ARE

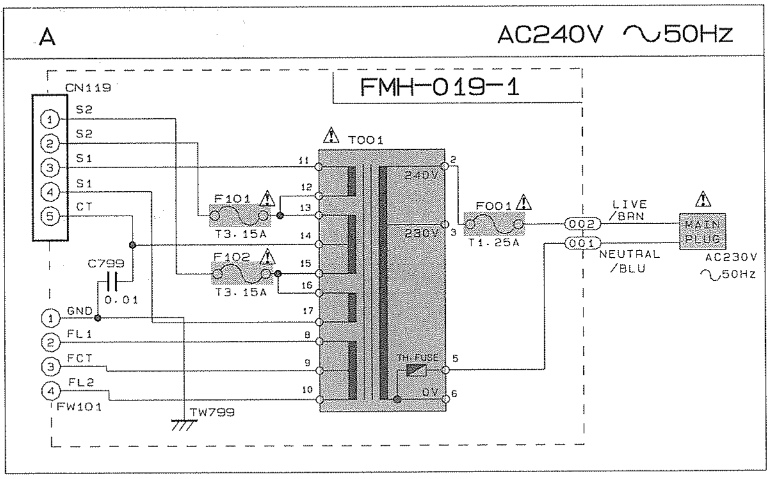
6 5 4 3 2 1

A B C D E

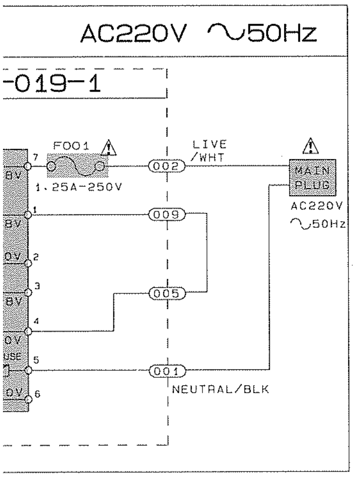
<

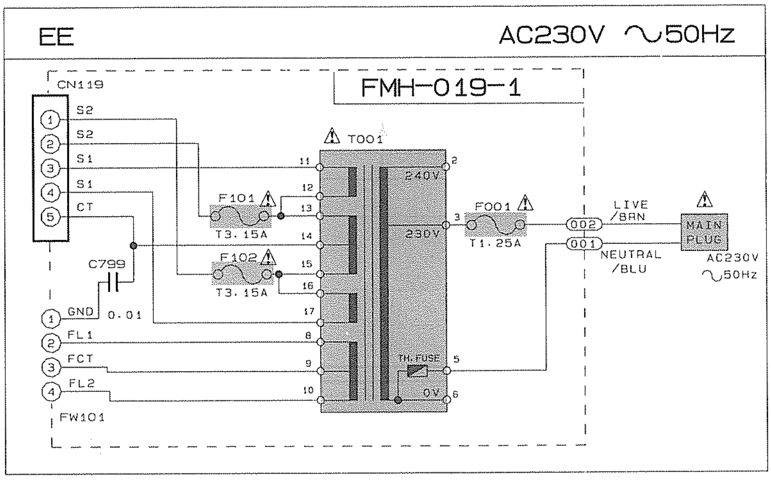
POWER SUPPLY BLOCK


AC230V ∿50Hz
FMH-019-1
T001
240V
230V
TH. FUSE
0V
2
3
5
6
F001
T1.25A
LIVE
/BRN
002
001
NEUTRAL
/BLU
MAIN
PLUG
AC230V
∿50Hz


A
AC240V ∿50Hz
FMH-019-1
CN119
S2
S2
S1
S1
CT
C799
0.01
GND
FL1
FCT
FL2
FW101
TW799
F101
T3.15A
F102
T3.15A
T001
240V
230V
TH. FUSE
0V
F001
T1.25A
LIVE
/BRN
002
001
NEUTRAL
/BLU
MAIN
PLUG
AC230V
∿50Hz

POWER SUPPLY BLOCK


AC220V ∿50Hz
-019-1
F001
1.25A-250V
LIVE
/WHT
002
009
005
001
NEUTRAL/BLK
MAIN
PLUG
AC220V
∿50Hz


EE
AC230V ∿50Hz
FMH-019-1
CN119
S2
S2
S1
S1
CT
C799
0.01
GND
FL1
FCT
FL2
FW101
F101
T3.15A
F102
T3.15A
T001
240V
230V
TH. FUSE
0V
F001
T1.25A
LIVE
/BRN
002
001
NEUTRAL
/BLU
MAIN
PLUG
AC230V
∿50Hz

MODEL NUMBERS TO BE APPLIED	CIRCUITS DESCRIPTION
X-J50/CA-MXJ50/MX-J56 55R/MX-J55R/CA-MXJ530R	.PRIMARY WITH MAINS TRANSFORMER
X-J50/CA-MXJ50/MX-J56 55R/MX-J55R/CA-MXJ530R	.DC REGULATORS/AUDIO OUTPUT
X-J50/CA-MXJ50/MX-J56 55R/MX-J55R/CA-MXJ530R	.EXTERNAL INPUT. SOURCE SELECTOR SWITCH
50/MX-J56/CA-MXJ50	.TUNER RF/IF/FM MULTIPLEX (ONLY FOR J.C.U.UP.UR.US.UT.UV.UX.UY.A.DOM)
XJ55R/CA-MXJ530R	.TUNER RF/IF/FM MULTIPLEX (ONLY FOR B.E.EN.EV)
MX-J55R	.TUNER RF/IF/FM MULTIPLEX (ONLY FOR EE)
MX-J55R	.POLAR STEREO MULTIPLEX (ONLY FOR EE)
X-J50/CA-MXJ50/MX-J56 55R/MX-J55R/CA-MXJ530R	.FL DISPLAY. SYSTEM CONTROL LSI. USER CONTROL KEYS
MX-J50	.MIC AMP. ECHO CIRCUIT (ONLY FOR U/UP/UR/US/UT/UV/UX/UY)
X-J50/CA-MXJ50/MX-J56 55R/MX-J55R/CA-MXJ530R	.TAPE DECK MECHANISM CONTROL .TAPE CIRCUITS SUCH AS PRE-AMP AND BIAS
X-J50/CA-MXJ50/MX-J56 55R/MX-J55R/CA-MXJ530R	.CD SERVO AND CD SYSTEM CONTROL .CD CHANGER MECHANISM CONTROL

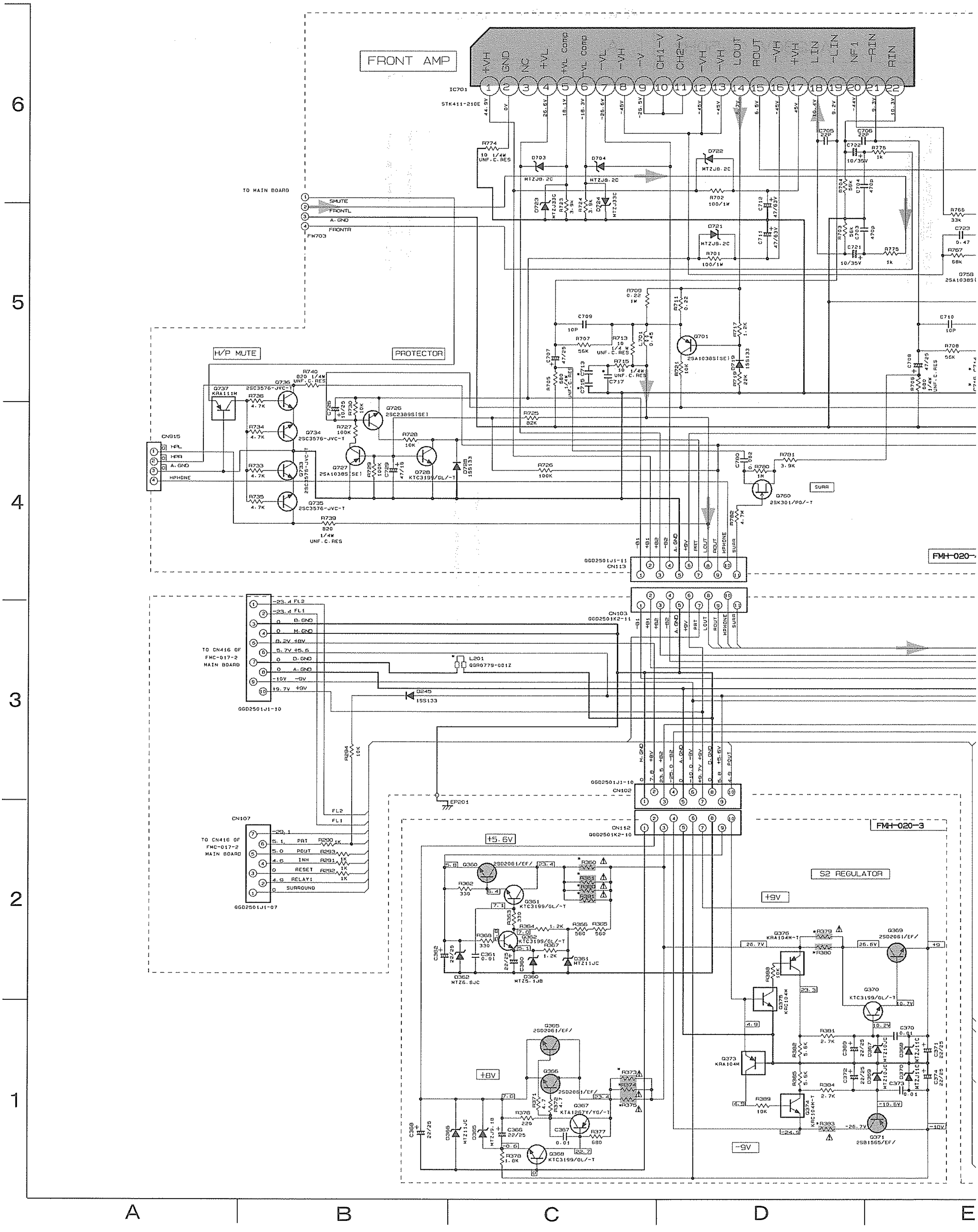
(*) IS TO SHOW DEVIATION IN VERSIONS.
LS ARE EXPLAINED NEAR THE MARK.

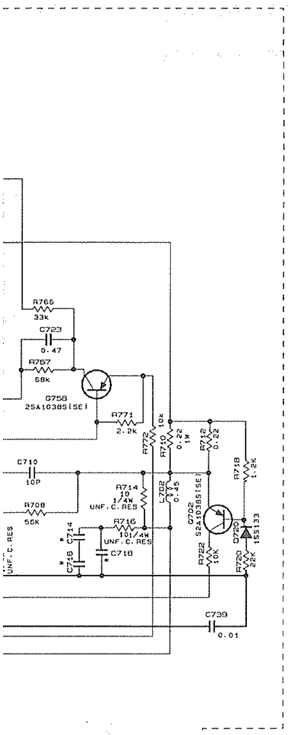
MODEL
MX-J50/CA-MXJ50/CA-MXJ55R
CA-MXJ530R/MX-J55R/MX-J56

SHEET 1/11

▨ ⚠ Parts are safety assurance parts.
When replacing those parts make
sure to use the specified one.

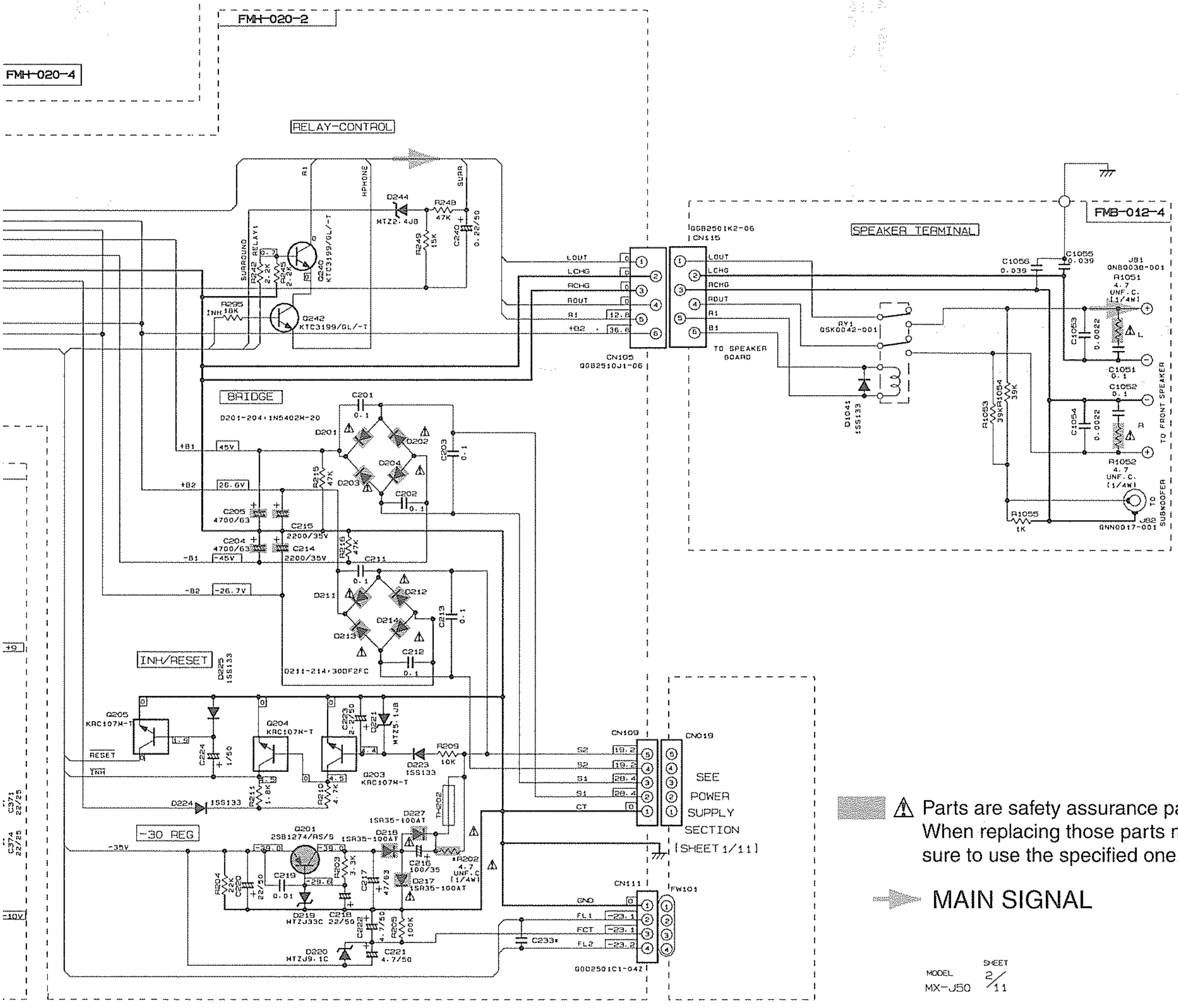
Power Amplifier & Regulator Section


FRONT AMP
IC701
STK411-210E
+VH
GND
NC
+VL
+VL Comp
-VL Comp
-VL
-VH
-V
CH1-V
CH2-V
-VH
-VH
LOUT
ROUT
-VH
+VH
LIN
-LIN
NF1
-RIN
RIN
TO MAIN BOARD
SMUTE
FRONTL
A.GND
FRONTR
FW703
H/P MUTE
PROTECTOR
CN915
HPL
HPR
A.GND
HPHONE
Q737 KRA111M
Q736 2SC3576-JVC-T
Q734 2SC3576-JVC-T
Q733 2SC3576-JVC-T
Q735 2SC3576-JVC-T
Q726 2SC2389S(SE)
Q727 2SA1038S(SE)
Q728 KTC3199/GL/-T
D728 1SS133
Q701 2SA1038S(SE)
Q760 2SK301/P0/-T
Q758 2SA1038S
SURR
D703 MTZJ8.2C
D704 MTZJ8.2C
D722 MTZJ8.2C
D721 MTZJ8.2C
D723 MTZJ33C
D724 MTZJ33C
CN113
GGD2501J1-11
CN103
GGD2501K2-11
-B1 +B1 +B2 -B2 A.GND +9V PRT LOUT ROUT HPHONE SURR
FMH-020-
TO CN416 OF FMC-017-2 MAIN BOARD
GGD2501J1-10
-23.4 FL2
-23.4 FL1
B.GND
M.GND
8.2V +8V
5.7V +5.6
D.GND
A.GND
-10V -9V
9.7V +9V
L201 QQR0779-001Z
D245 1SS133
R294 10K
CN102
GGD2501J1-10
M.GND +8V +B2 -B2 A.GND -9V +9V D.GND +5.6V PCUT
EP201
CN112
GGD2501K2-10
CN107
TO CN416 OF FMC-017-2 MAIN BOARD
-29.1
5.1 PRT
5.0 PCUT
4.6 INH
0 RESET
4.9 RELAY1
0 SURROUND
GGD2501J1-07
FL2
FL1
FMH-020-3
+5.6V
Q360 2SD2061/EF/
Q361 KTC3199/GL/-T
Q362 KTC3199/GL/-T
D360 MTZ5.1JB
D361 MTZ11JC
D362 MTZ6.8JC
S2 REGULATOR
+9V
Q376 KRA104M-T
Q369 2SD2061/EF/
Q370 KTC3199/GL/-T
Q375 KRC104M
Q373 KRA104M
Q374 KRC104M-T
Q371 2SB1565/EF/
-9V
+8V
Q365 2SD2061/EF/
Q366 2SD2061/EF/
Q367 KTA1267Y/YG/-T
Q368 KTC3199/GL/-T
D365 MTZ11JC
D366 MTZJ9.1B
A
B
C
D
E
1
2
3
4
5
6


R765
33k
C723
0.47
R767
68k
Q758
2SA1038S(SE)
R771
2.2k
R772
10k
R710
0.22
1W
R712
0.22
R718
1.2K
C710
10P
R714
10
1/4W
UNF.C.RES
L702
0.45
Q702
2SA1385(SE)
D720
1SS133
R708
56K
R716
10(1/4W
UNF.C.RES
C714
C716
C718
R722
10K
R720
22K
C739
0.01
UNF.C.RES

* MARK

	MX-J50	CA-MXJ55R	MX-J50		MX-J56	MX-J55R	CA-MXJ530R	CA-MXJ50
	U/UP/UR/US/UV UX/UY/A	B/E/EN/EV	J	C	C	EE	B/E/EN/EV	DOM
C233	0.22 (A: 0.01)	0.01	0.01	0.01	0.01	0.01	0.01	0.01
C713.714	0.1	0.1	NONE	0.1	0.1	0.1	0.1	NONE
C715.716	0.1	0.1	NONE	0.1	0.1	0.1	0.1	NONE
C717.718	NONE	NONE	0.047	NONE	NONE	NONE	NONE	0.047
R202	NONE	NONE	USED	NONE	NONE	NONE	NONE	NONE
TH202	USED	USED	NONE	USED	USED	USED	USED	USED
L201	B265 (A: USED)	USED	B265	B265	B265	B265	USED	B265
R373	22(1W) F.RES	22(1W) F.RES	NONE	22(1W) F.RES	22(1W) F.RES	22(1W) F.RES	22(1W) F.RES	22(1W) F.RES
R374	22(1W) F.RES	22(1W) F.RES	22(2W)	22(1W) F.RES	22(1W) F.RES	22(1W) F.RES	22(1W) F.RES	22(1W) F.RES
R375	22(1W) F.RES	22(1W) F.RES	22(2W)	22(1W) F.RES	22(1W) F.RES	22(1W) F.RES	22(1W) F.RES	22(1W) F.RES
R379	SHORT	SHORT	22(2W)	22(2W)	22(2W)	SHORT	SHORT	SHORT
R380	NONE	NONE	22(2W)	22(2W)	22(2W)	NONE	NONE	NONE
R383	SHORT	SHORT	15(1W)	SHORT	SHORT	SHORT	SHORT	SHORT
R360	2.2(1/4W)F.RES	2.2(1/4W)F.RES	NONE	2.2(1/4W) F.RES	2.2(1/4W) F.RES	2.2(1/4W) F.RES	2.2(1/4W) F.RES	2.2(1/4W) F.RES
R361	2.2(1/4W)F.RES	2.2(1/4W)F.RES	NONE	2.2(1/4W) F.RES	2.2(1/4W) F.RES	2.2(1/4W) F.RES	2.2(1/4W) F.RES	2.2(1/4W) F.RES
R390	NONE	NONE	22(2W)	NONE	NONE	NONE	NONE	NONE
R391	NONE	NONE	22(2W)	NONE	NONE	NONE	NONE	NONE


FMH-020-2
FMH-020-4
RELAY-CONTROL
SURROUND
RELAY1
R242
2.2K
R245
2.2K
Q241
KTC3199/GL/-T
Q242
KTC3199/GL/-T
R295
18K
INH
HPHONE
R1
SURR
D244
MTZ2.4JB
R248
47K
R249
15K
C248
0.22/50
LOUT
LCHG
RCHG
ROUT
R1
+B2
CN105
QGB2510J1-06
QGB2501K2-06
CN115
TO SPEAKER BOARD
BRIDGE
D201-204:1N5402H-20
C201
0.1
D201
D202
D203
D204
C203
0.1
C202
0.1
R215
47K
+B1
45V
+B2
26.6V
C205
4700/63
C215
2200/35V
C204
4700/63
C214
2200/35V
R216
47K
-B1
-45V
-B2
-26.7V
C211
0.1
D211
D212
D213
D214
C213
0.1
C212
0.1
D211-214:30DF2FC
INH/RESET
D225
1SS133
Q205
KRC107H-T
RESET
INH
C224
1/50
Q204
KRC107H-T
C223
2.2/50
D221
MTZ5.1JB
Q203
KRC107H-T
R211
1.8K
R210
4.7K
R209
10K
D223
1SS133
D224
1SS133
-30 REG
-35V
Q201
2SB1274/RS/S
1SR35-100AT
D218
D227
1SR35-100AT
TH202
R202
4.7
UNF.C
(1/4W)
C216
100/35
D217
1SR35-100AT
R204
22K
C220
22/50
C219
0.01
R203
3.3K
C217
47/63
D219
MTZJ33C
C218
22/50
C222
4.7/50
R205
100K
D220
MTZJ9.1C
C221
4.7/50
CN109
CN019
S2
S2
S1
S1
CT
SEE
POWER
SUPPLY
SECTION
(SHEET 1/11)
CN111
FW101
GND
FL1
FCT
FL2
C233*
QGD2501C1-04Z
SPEAKER TERMINAL
FMB-012-4
C1056
0.039
C1055
0.039
JB1
QNB0038-001
R1051
4.7
UNF.C.
(1/4W)
C1053
0.0022
L
RY1
QSK0042-001
D1041
1SS133
R1053
39K
R1054
39K
C1051
0.1
C1052
0.1
C1054
0.0022
R
R1052
4.7
UNF.C.
(1/4W)
TO FRONT SPEAKER
R1055
1K
TO SUBWOOFER
JB2
QNN0017-001

▨ ⚠ Parts are safety assurance parts.
When replacing those parts make sure to use the specified one.

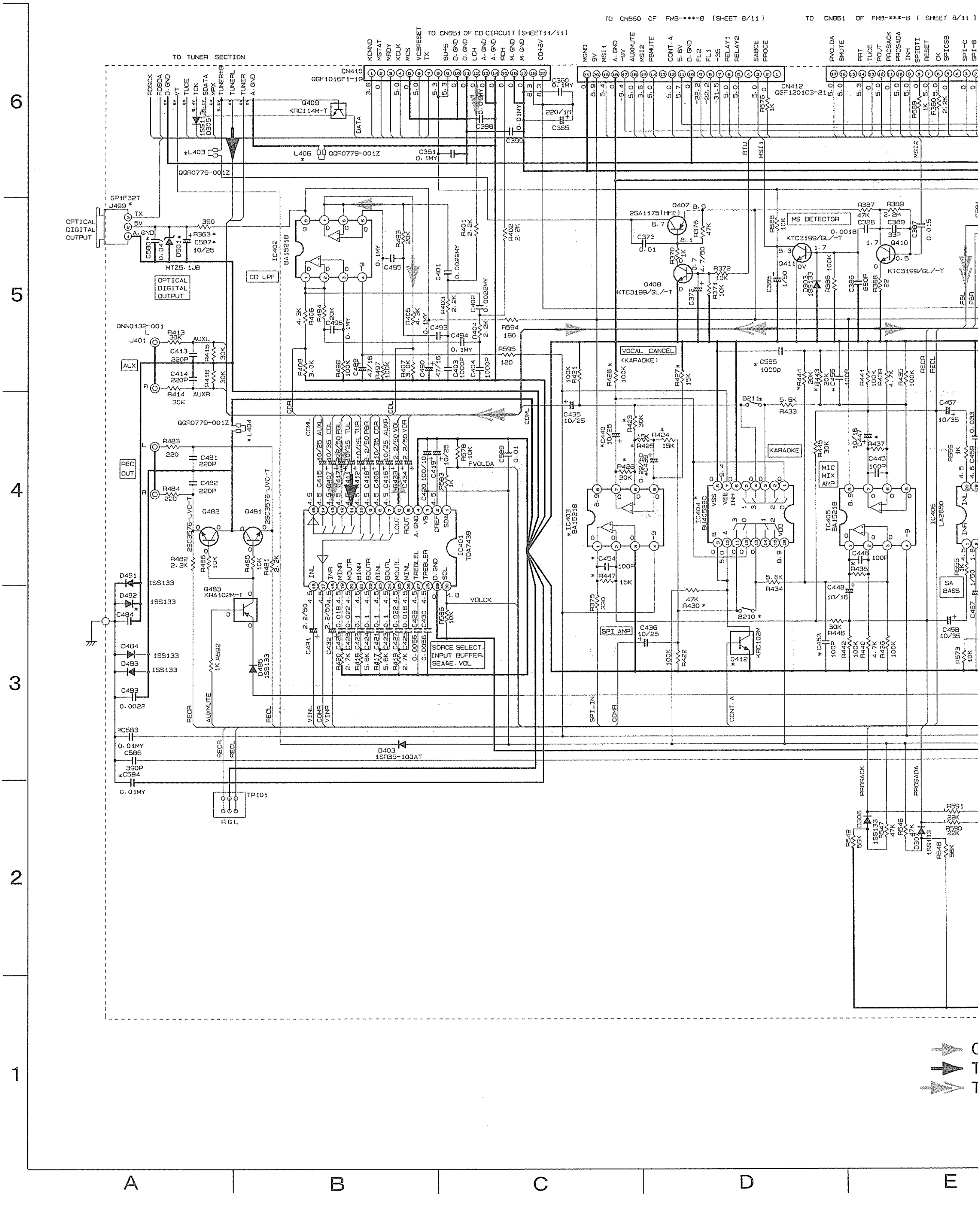
➡ MAIN SIGNAL

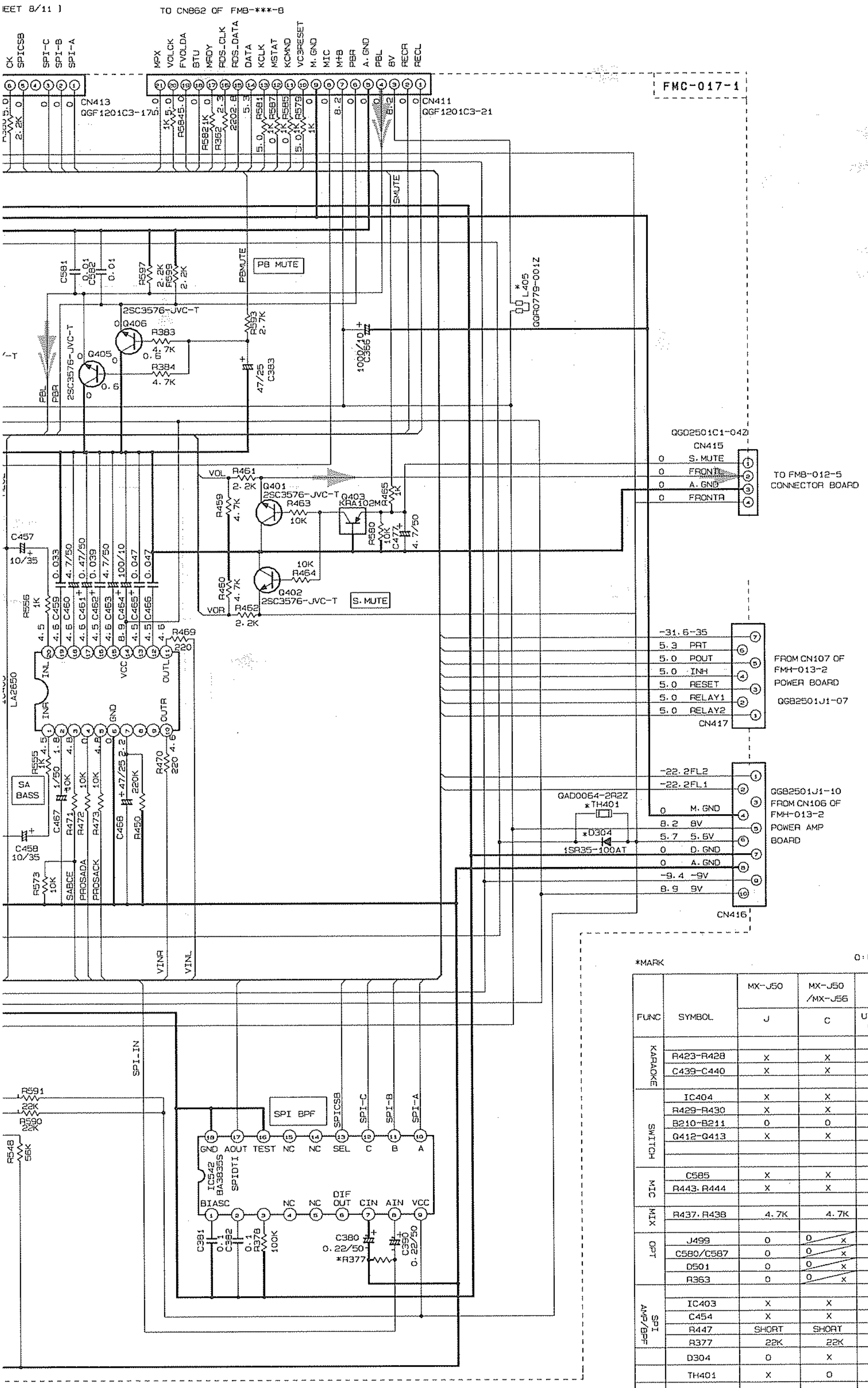
MODEL
MX-J50

SHEET
2/11

E	F	G	H	I

Function & Main Amplifier Section


TO TUNER SECTION
TO CN651 OF CD CIRCUIT (SHEET11/11)
TO CN860 OF FMB-***-B (SHEET 8/11)
TO CN861 OF FMB-***-B (SHEET 8/11)
CN410
QGF1016F1-19
CN412
QGF1201C3-21
Q409
KRC114M-T
DATA
L403
L406
QQR0779-001Z
C361
0.1MY
C398
C399
C360
C365
220/16
GP1F32T
J499
OPTICAL DIGITAL OUTPUT
TX
5V
A.GND
390
R363
C580
C501
C587
10/25
MTZ5.1JB
IC402
BA15218
CD LPF
R401
R402
R403
R404
R405
R406
R407
R408
R493
R494
R497
R498
C401
C402
C403
C404
C493
C494
C495
C496
C489
C490
R594
R595
180
QNN0132-001
J401
AUX
AUXL
AUXR
R413
R414
R415
R416
C413
C414
220P
30K
QQR0779-001Z
L404
REC OUT
R483
R484
C481
C482
Q482
Q481
2SC3576-JVC-T
R481
R482
R485
R486
Q483
KRA102M-T
R592
D485
1SS133
D481
D482
D483
D484
C483
C484
0.0022
IC401
TDA7439
SORCE SELECT. INPUT BUFFER. SEA&E.VOL
FVOLDA
VOLCK
R578
R593
R596
C589
C431
C432
COML
CDL
TUL
PBL
PBR
TUR
CDR
AUXL
AUXR
VDL
VDR
INL
INR
MINR
MOUTR
BINR
BOUTR
BINL
BOUTL
MOUTL
MINL
TREBLEL
TREBLER
D.GND
SCL
SDA
CREF
VS
A.GND
ROUT
LOUT
RECR
AUXMUTE
RECL
VINL
COMR
VINR
C583
C584
C586
0.01MY
390P
D403
1SR35-100AT
TP101
R G L
2SA1175(HFE)
Q407
Q408
KTC3199/GL/-T
R370
R371
R372
R376
C372
C373
VOCAL CANCEL (KARAOKE)
R421
R423
R424
R425
R426
R427
R428
C435
C440
IC403
BA15218
R447
C454
R375
SPI AMP
C436
R422
IC404
BU4052BC
VEE
INH
VSS
VDD
KARAOKE
B211
B210
R430
R433
R434
Q412
KRC102M
MS DETECTOR
R588
R387
R389
C388
C389
C387
Q411
Q410
KTC3199/GL/-T
D303
R396
C385
C386
R388
C585
1000P
R444
R443
C455
R441
R439
R435
R445
MIC MIX AMP
IC405
BA15218
C444
C445
C446
C448
R437
R438
R446
R442
R440
R436
C453
IC406
LA2650
C457
C459
C458
C467
R555
R556
R573
SA BASS
SPI-IN
COMR
CONT.A
PROSACK
PROSADA
D306
D307
R546
R547
R548
R549
R590
R591
KCMND
MSTAT
MRDY
KCLK
MCS
VC3RESET
TX
BU+5
D.GND
LCH
A.GND
RCH
M.GND
CD+8V
RDSCK
RDSDA
VT
TUCE
TCK
SDATA
MPX
TUNER+B
TUNERL
TUNER
MGND
9V
MSI1
-9V
AUXMUTE
MSI2
PBMUTE
CONT.A
5.6V
FL2
FL1
-35
RELAY1
RELAY2
SABCE
PROCE
BTU
RVOLDA
SMUTE
PRT
TUCE
POUT
SPIDTI
RESET
CK
SPICSB
SPI-C
SPI-B
A
B
C
D
E
1
2
3
4
5
6


IEET 8/11)
TO CN862 OF FMB-***-B
CK
SPICSB
SPI-C
SPI-B
SPI-A
CN413
QGF1201C3-17
MPX
VOLCK
FVOLDA
BTU
MRDY
RDS_CLK
RDS_DATA
DATA
KCLK
MSTAT
KCMND
VC3RESET
M.GND
MIC
M+B
PBR
A.GND
PBL
8V
RECR
RECL
CN411
QGF1201C3-21
FMC-017-1
R584 1K
R582 1K
R362 220
R581
R587
R585
R579
SMUTE
PBMUTE
PB MUTE
C581 0.01
C582 0.01
R597 2.2K
R599 2.2K
2SC3576-JVC-T
Q406
R383 4.7K
Q405
R384 4.7K
R593 2.7K
47/25 C383
1000/10 C366
L405 QQR0779-001Z
PBL
PBR
QGD2501C1-042
CN415
S.MUTE
FRONTL
A.GND
FRONTR
TO FMB-012-5 CONNECTOR BOARD
VOL
R461 2.2K
Q401
2SC3576-JVC-T
R463 10K
Q403 KRA102M
R465 1K
R459 4.7K
R580 10K
C477 4.7/50
R464 10K
R460 4.7K
Q402
2SC3576-JVC-T
S.MUTE
VOR
R462 2.2K
C457 10/35
R556 1K
C459 0.033
C460 4.7/50
C461 0.47/50
C462 0.039
C463 4.7/50
C454 100/10
C465 0.047
C466 0.047
R469 220
LA2650
INL
VCC
OUTL
INR
GND
OUTR
R555 1K
SA BASS
C467 1/50
R471 10K
R472 10K
R473 10K
C468 47/25
R450 220K
R470 220
C458 10/35
R573 10K
SABCE
PROSADA
PROSACK
VINR
VINL
-31.6~35
PRT
POUT
INH
RESET
RELAY1
RELAY2
CN417
FROM CN107 OF FMH-013-2 POWER BOARD
QGB2501J1-07
-22.2FL2
-22.2FL1
QAD0064-2R2Z
*TH401
M.GND
8V
5.6V
*D304
1SR35-100AT
D.GND
A.GND
-9V
9V
CN416
QGB2501J1-10 FROM CN106 OF FMH-013-2 POWER AMP BOARD
SPI_IN
R591 22K
R590 22K
R548 56K
SPI BPF
SPICSB
SPI-C
SPI-B
SPI-A
GND
AOUT
TEST
NC
SEL
C
B
A
IC542 BA3835S SPIDTI
BIASC
DIF OUT
CIN
AIN
VCC
C381 0.1
C382 0.1
R378 100K
C380 0.22/50
*R377
C390 0.22/50

⊳ CD / MAIN SIGNAL

➡ TUNER SIGNAL

⊳ TAPE P.B. SIGNAL

MODEL MX-J56
MODEL MX-J50
MODEL MX-J55R
MODEL CA-MXJ530R
CA-MXJ55R
MODEL CA-MXJ50

SHEET 3/11

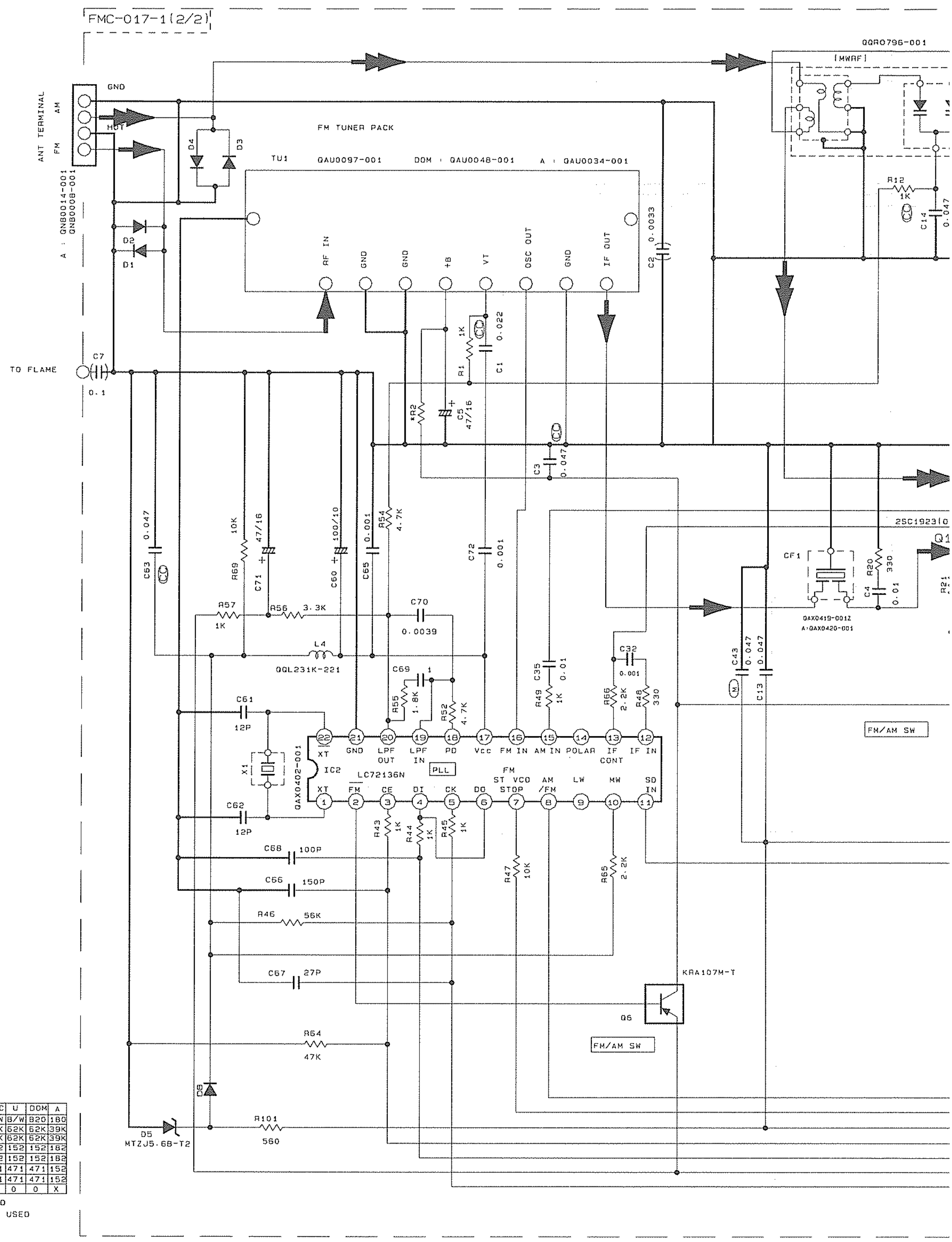
*MARK

0: USED X: NONE

FUNC	SYMBOL	MX-J50	MX-J50 /MX-J56	MX-J50	MX-J50	CA-MXJ530R /CA-MXJ55R	MX-J55R	CA-MXJ50
		J	C	U. US. UP UT. UB	A	B. E. EN. EV	EE	DOM
KARAOKE								
	R423-R428	X	X	0	X	X	X	X
	C439-C440	X	X	0	X	X	X	X
SWITCH	IC404	X	X	0	X	X	X	X
	R429-R430	X	X	0	X	X	X	X
	B210-B211	0	0	X	0	0	0	0
	Q412-Q413	X	X	0	X	X	X	X
MIC	C585	X	X	0	X	X	X	X
	R443. R444	X	X	0	X	X	X	X
MIX	R437. R438	4.7K	4.7K	6.8K	4.7K	4.7K	4.7K	4.7K
OPT	J499	0	0/X	0	0	0	0	0
	C580/C587	0	0/X	0	0	0	0	0
	D501	0	0/X	0	0	0	0	0
	R363	0	0/X	0	0	0	0	0
SPI AMP/BPF								
	IC403	X	X	0	X	X	X	X
	C454	X	X	0	X	X	X	X
	R447	SHORT	SHORT	0	SHORT	SHORT	SHORT	SHORT
	R377	22K	22K	10K	22K	22K	22K	22K
	D304	0	X	X	X	X	X	X
	TH401	X	0	0	0	0	0	0
	L406	0	0	0	0	0	SHORT	0
	L403	0	0	0	0	0	SHORT	0
	L404	SHORT	SHORT	SHORT	0	0	SHORT	SHORT
	L405	SHORT	SHORT	SHORT	0	0	SHORT	SHORT
	R362	X	X	X	0	0	0	X
	C453. C455	X	X	X	0	0	X	X
	C484	100P	100P	1000P	0.0022	0.0022	100P	100P
	C398-C399	0	0	0	0	0	X	0
	C583	X	X	X	0	0	X	X
	C584	X	X	X	0	0	X	X

E F G H I

■TUNER Section (For Ver. J,C,A,U,DOM)

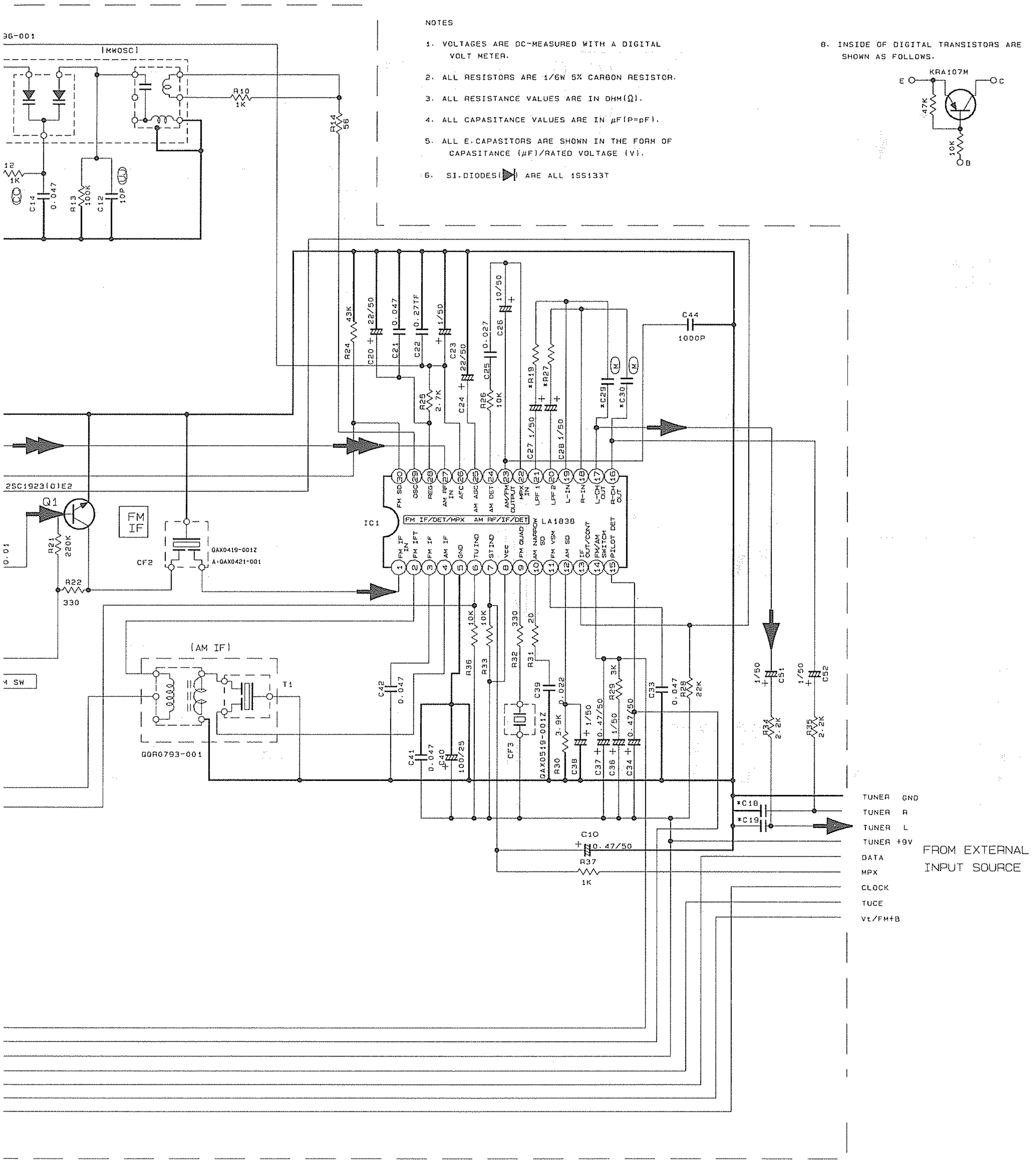

FMC-017-1(2/2)
ANT TERMINAL
AM
FM
GND
HOT
A : QNB0014-001
QNB0008-001
D4
D3
D2
D1
FM TUNER PACK
TU1 QAU0097-001 DOM : QAU0048-001 A : QAU0034-001
RF IN
GND
GND
+B
VT
OSC OUT
GND
IF OUT
C2 0.0033
TO FLAME
C7
0.1
R1 1K
C1 0.022
*R2
C5 47/16
C3 0.047
C63 0.047
R69 10K
C71 47/16
C60 100/10
C65 0.001
R54 4.7K
C72 0.001
R57 1K
R56 3.3K
C70 0.0039
L4
QQL231K-221
C69 1
R55 1.8K
R52 4.7K
C35 0.01
R49 1K
C32 0.001
R66 2.2K
R48 330
C61 12P
C62 12P
X1
QAX0402-001
IC2
LC72136N
PLL
XT
GND
LPF OUT
LPF IN
PD
Vcc
FM IN
AM IN
POLAR
IF CONT
IF IN
XT
FM
CE
DI
CK
DO
FM ST VCO STOP
AM /FM
LW
MW
SD IN
R43 1K
R44 1K
R45 1K
R47 10K
R65 2.2K
C68 100P
C66 150P
R46 56K
C67 27P
R64 47K
D6
D5
MTZJ5.6B-T2
R101 560
KRA107M-T
Q6
FM/AM SW
FM/AM SW
QQR0796-001
[MWRF]
R12 1K
C14 0.047
2SC1923(O
Q1
CF1
QAX0419-001Z
A:QAX0420-001
R20 330
C4 0.01
R21
C43 0.047
C13 0.047
6
5
4
3
2
1
A
B
C
D
E

	J/C	U	DOM	A
R2	B/W	B/W	820	180
R19	62K	62K	62K	39K
R27	62K	62K	62K	39K
C29	222	152	152	182
C30	222	152	152	182
C18	471	471	471	152
C19	471	471	471	152
C44	O	O	O	X

O : USED
X : NOT USED

	CONDITION PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
IC1	FM NO SIGNAL	3.5	9.1	3.5	3.5	0.4	7.0	6.4	9.1	0	1.3	0.3	0.5	0.8	8	8	4.3	4.3	4.3	4.3	3.2	3.2	2.8	3.5	0	0	3.4	3.4	3.6
	FM 60dB STEREO	3.5	9.1	3.5	3.5	0	0	0.2	9.1	2.3	1.3	4.3	0	0.8	8	8.1	4.3	4.3	4.3	4.3	3.2	3.2	2.8	3.1	0	0	3.6	3.6	3.6
	AM NO SIGNAL	3.5	9.1	3.5	3.5	0	9.1	6.4	9.1	2.7	1.3	0	0	0.8	0.1	5.6	4.2	4.2	4.2	4.2	3.2	3.2	2.8	2.9	0.6	0.5	3.5	3.5	3.5
IC2	FM NO SIGNAL	2.4	0	0	5.6	4.9	5.6	8	8	3.6	3.8	8.4	0	0	0	0	2.4	4.9	0.7	0.7	7.2	0	2.6						

MX-J50/MX-J56


36-001
(MWOSC)
R10
1K
R14
56
12
1K
C14
0.047
R13
100K
C12
10P
R24
43K
C20
22/50
C21
0.047
C22
0.27TF
C23
1/50
C24
22/50
C25
0.027
C26
10/50
R25
2.7K
R26
10K
*R19
*R27
C27 1/50
C28 1/50
*C29
*C30
C44
1000P
2SC1923(O)E2
Q1
FM IF
R21
220K
R22
330
0.01
CF2
QAX0419-001Z
A:QAX0421-001
IC1
FM IF/DET/MPX AM RF/IF/DET
LA1838
FM SD
OSC
REG
AM RF IN
AFC
AM AGC
AM DET
AM/FM OUTPUT
MPX IN
LPF 1
LPF 2
L-IN
R-IN
L-CH OUT
R-CH OUT
FM IF IN
FM IFT
FM IF
AM IF
GND
TU IND
ST IND
Vcc
FM QUAD
AM NARROW SD
FM VSM
AM SD
IF OUT/CONT
FM/AM SWITCH
PILOT DET
(AM IF)
T1
QQR0793-001
M SW
C42
0.047
R36
10K
R33
10K
R32
330
R31
20
C41
0.047
C40
100/25
CF3
QAX0519-001Z
C39
0.022
R30
3.9K
C38
1/50
C37
0.47/50
R29
3K
C36
1/50
C34
0.47/50
C33
0.047
R28
22K
C51
1/50
C52
1/50
R34
2.2K
R35
2.2K
*C18
*C19
C10
0.47/50
R37
1K
TUNER GND
TUNER R
TUNER L
TUNER +9V
DATA
MPX
CLOCK
TUCE
Vt/FM+B
FROM EXTERNAL
INPUT SOURCE
KRA107M
E
C
B
47K
10K

NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER.

2. ALL RESISTORS ARE 1/6W 5% CARBON RESISTOR.

3. ALL RESISTANCE VALUES ARE IN OHM(Ω).

4. ALL CAPASITANCE VALUES ARE IN μF(P=pF).

5. ALL E.CAPASITORS ARE SHOWN IN THE FORM OF CAPASITANCE (μF)/RATED VOLTAGE (V).

6. SI.DIODES(▶|) ARE ALL 1SS133T

8. INSIDE OF DIGITAL TRANSISTORS ARE SHOWN AS FOLLOWS.

7	28	29	30
.4	3.6	3.6	2.3
.6	3.6	3.6	2.3
.5	3.5	3.5	2.1

Tr NO.	Q1			Q6					
PIN NO.	E	C	B	E	C	B			
FM 87.5MHz NO SIGNAL	0	7.4	0.8	8.4	8.3	0			
AM 522KHz NO SIGNAL	0	0	0	8.5	0	8.4			
Tr NO.	Q2			Q3			Q4		
PIN NO.	E	C	B	E	C	B	E	C	B
AM 522KHz NO SIGNAL	3.5	3.5	0.3	0	0	0.7	0	0	0.7
AM 144KHz NO SIGNAL	3.5	3.5	3.5	0	0	0.1	0	0	0.1

A/C/J/U/DOM

MODEL CA-MXJ50
MX-J56
MX-J50

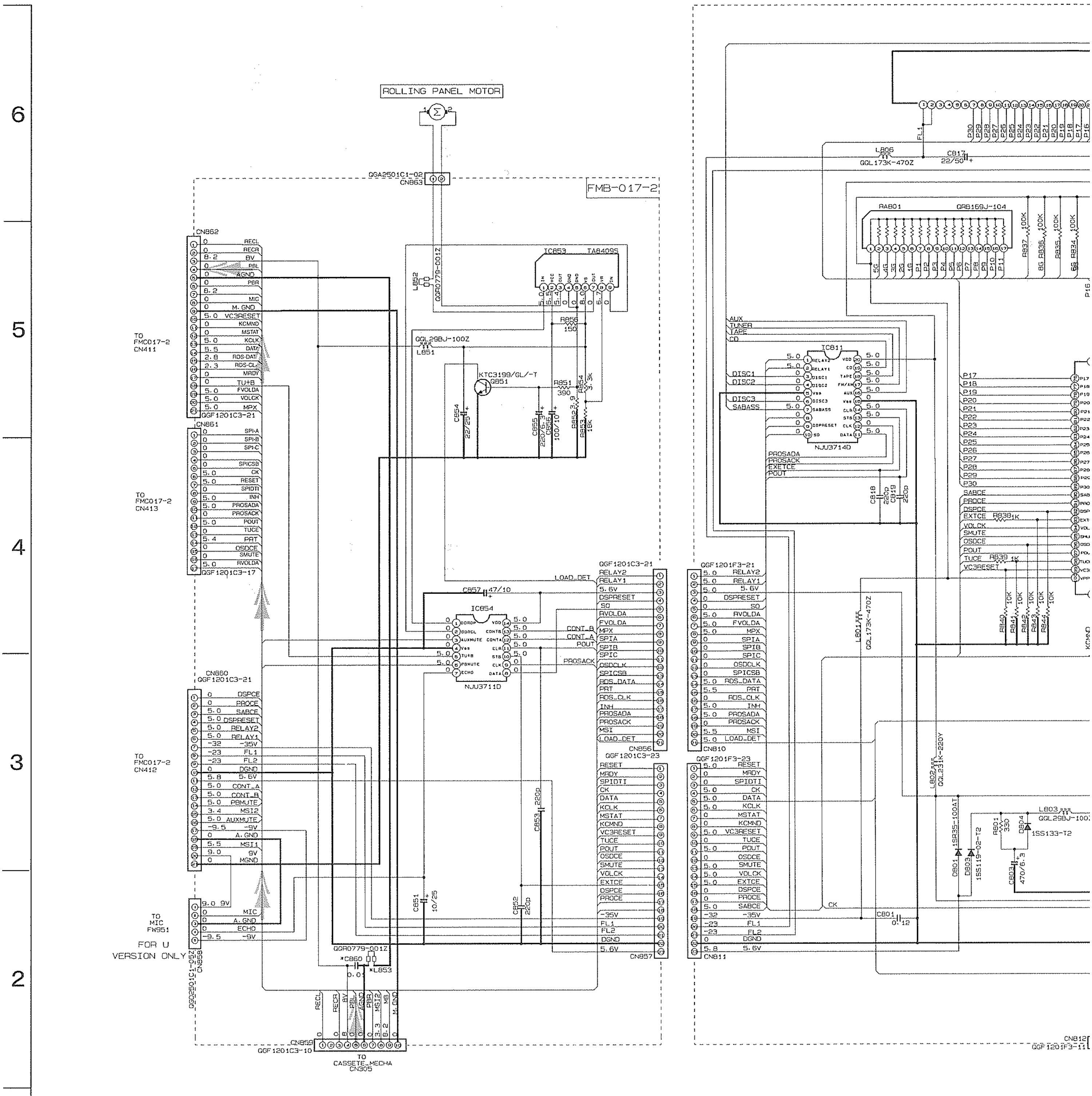
SHEET 4/11

➡ FM/TUNER MAIN SIGNAL

➡ AM SIGNAL

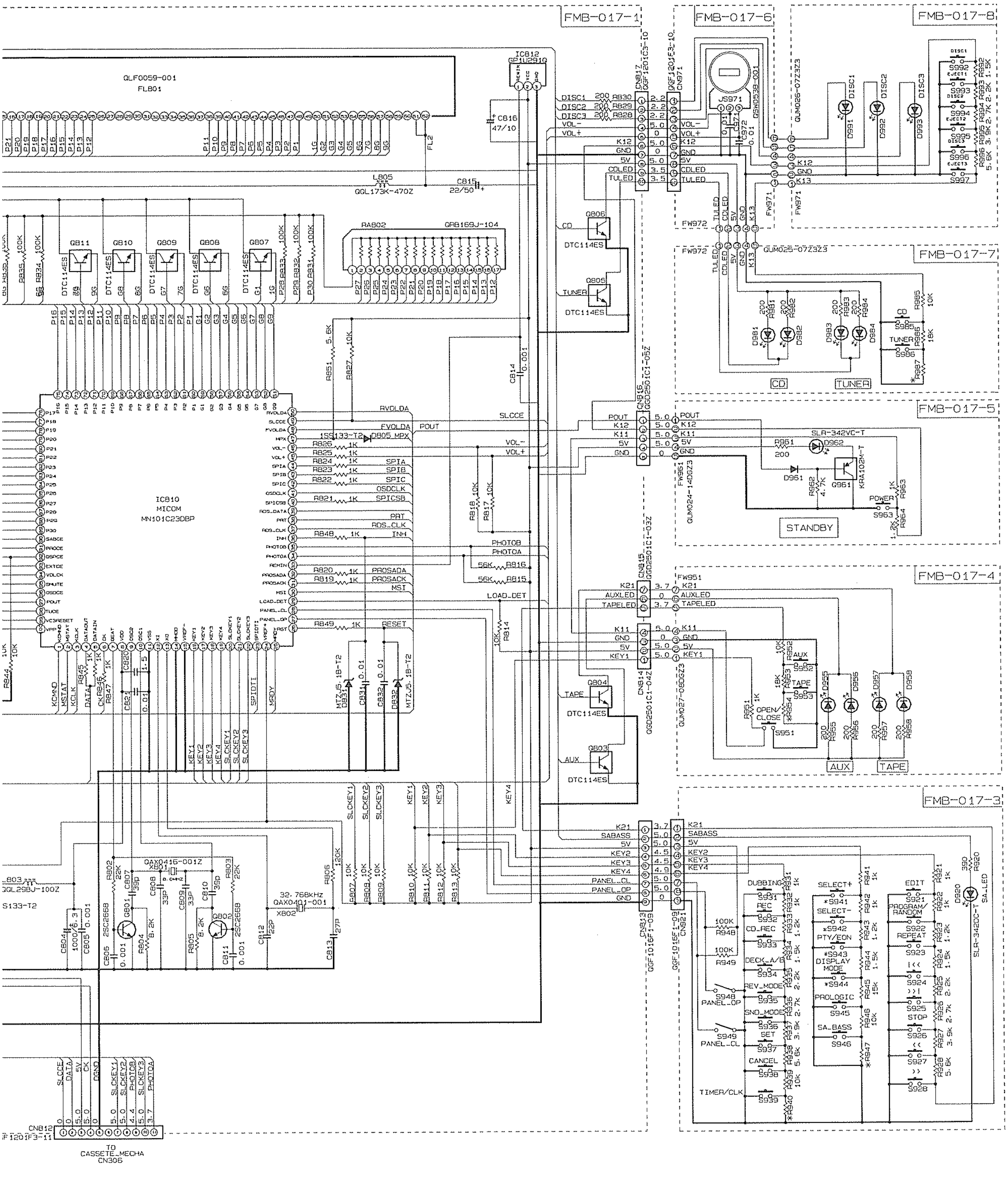
E	F	G	H	I

■ FL Display & System Controllre Section


6
5
4
3
2
ROLLING PANEL MOTOR
QGA2501C1-02
CN863
FMB-017-2
CN862
TO FMC017-2 CN411
QGF1201C3-21
CN861
TO FMC017-2 CN413
QGF1201C3-17
CN860
QGF1201C3-21
TO FMC017-2 CN412
TO MIC FW951
FOR U VERSION ONLY
QGD2501C1-05Z
CN858
IC853 TA8409S
QQR0779-001Z
L852
QQL29BJ-100Z
L851
KTC3199/GL/-T
Q851
R856 150
R851 390
R854 3.3k
C854 22/25
C855 220/6.3
C856 100/10
R852 3.9
R853 18K
C857 47/10
IC854
NJU3711D
LOAD_DET
CONT_B
CONT_A
POUT
PROSACK
C853 220p
C851 10/25
C852 220p
QGR0779-001Z
*C860 0.01
*L853
CN859
QGF1201C3-10
TO CASSETE_MECHA CN305
QGF1201C3-21
CN856
QGF1201C3-23
CN857
QGF1201F3-21
CN810
QGF1201F3-23
CN811
L806 QQL173K-470Z
C817 22/50
FL1
RA801 QRB169J-104
R837 100K
R836 100K
R834 100K
AUX
TUNER
TAPE
CD
IC811
NJU3714D
DISC1
DISC2
DISC3
SABASS
PROSADA
PROSACK
EXETCE
POUT
C818 220p
C819 220p
R838 1K
R839 1K
R840 10K
R841 10K
R842 10K
R843 10K
R844 10K
L801 QQL173K-470Z
L802 QQL231K-220Y
L803 QQL29BJ-100Z
D801 1SR35-100AT
D803 1SS119-02-T2
D804 1SS133-T2
R801 330
C803 470/6.3
C801 0.12
CK
CN812
QGF1201F3-11

* MARK	J50-SERIES								J70-SERIES					
MODEL	MX-J50 MX-J55	MX-J50				CA-MXJ50	CA-MXJ55R CA-MXJ530R	MX-J55R	MX-J70 MX-J76	CA-MCJ70				CA-MXJ75R
ITEM / VERSION	J/C	U/UP/US/UT/UV	UR/UY	UX	A	DOM	B/E/EN/EV	EE	J/C	U/UP/US/UT/UV	UR/UY	UX	A	B/E/EN/EV
S941	X	X	X	X	X	X	O	O	X	X	X	X	X	O
S942	X	X	X	X	X	X	O	O	X	X	X	X	X	O
S943	X	X	X	X	X	X	O	O	X	X	X	X	X	O
S944	X	X	X	X	X	X	O	O	X	X	X	X	X	O
R940	56K	56K	X	18K	X	X	56K	X	56K	56K	X	18K	X	56K
R947	56K	X	18K	X	X	X	X	56K	56K	X	18K	X	X	X
R954	56K	56K	X	X	56K	X	X	X	56K	56K	X	X	56K	X
R987	X	X	X	X	X	X	X	X	56K	56K	56K	56K	56K	56K
L853	X	X	X	X	O	X	O	X	X	X	X	X	O	O
C860	X	X	X	X	O	X	O	X	X	X	X	X	O	O

A B C D E


FMB-017-1
FMB-017-6
FMB-017-8
FMB-017-7
FMB-017-5
FMB-017-4
FMB-017-3
QLF0059-001
FL801
IC812
GP1U291Q
IC810
MICOM
MN101C23DBP
RA802
QRB169J-104
L805
QQL173K-470Z
C816
47/10
C815
22/50
Q811
Q810
Q809
Q808
Q807
DTC114ES
Q806
Q805
Q804
Q803
CD
TUNER
TAPE
AUX
JS971
QSW0538-001
CN971
CN817
CN816
CN815
CN814
CN813
CN812
CN921
FW972
FW971
FW961
FW951
QUM025-07Z3Z3
QUM024-14DGZ3
QUM027-06DGZ3
SLR-342VC-T
D962
D961
Q961
KRA102M-T
POWER
S963
STANDBY
D991
D992
D993
DISC1
DISC2
DISC3
D981
D982
D983
D984
S985
S986
S951
OPEN/CLOSE
S952
S953
D955
D956
D957
D958
DUBBING
SELECT+
EDIT
PROGRAM/RANDOM
SELECT-
PTY/EON
DISPLAY MODE
PROLOGIC
SA_BASS
CD_REC
DECK_A/B
REV_MODE
SND_MODE
SET
CANCEL
TIMER/CLK
REPEAT
STOP
PANEL_OP
PANEL_CL
D920
SA_LED
SLR-342DC-T
QAX0416-001Z
X801
QAX0401-001
X802
32.768kHz
Q801
Q802
2SC2668
QQL29BJ-100Z
1SS133-T2
TO
CASSETE_MECHA
CN306

TAPE P.B. SIGNAL

XJ75R	MX-J75R
EN/EV	EE
0	0
0	0
0	0
0	0
6K	X
X	56K
X	X
5K	56K
0	X
0	X

NOTES

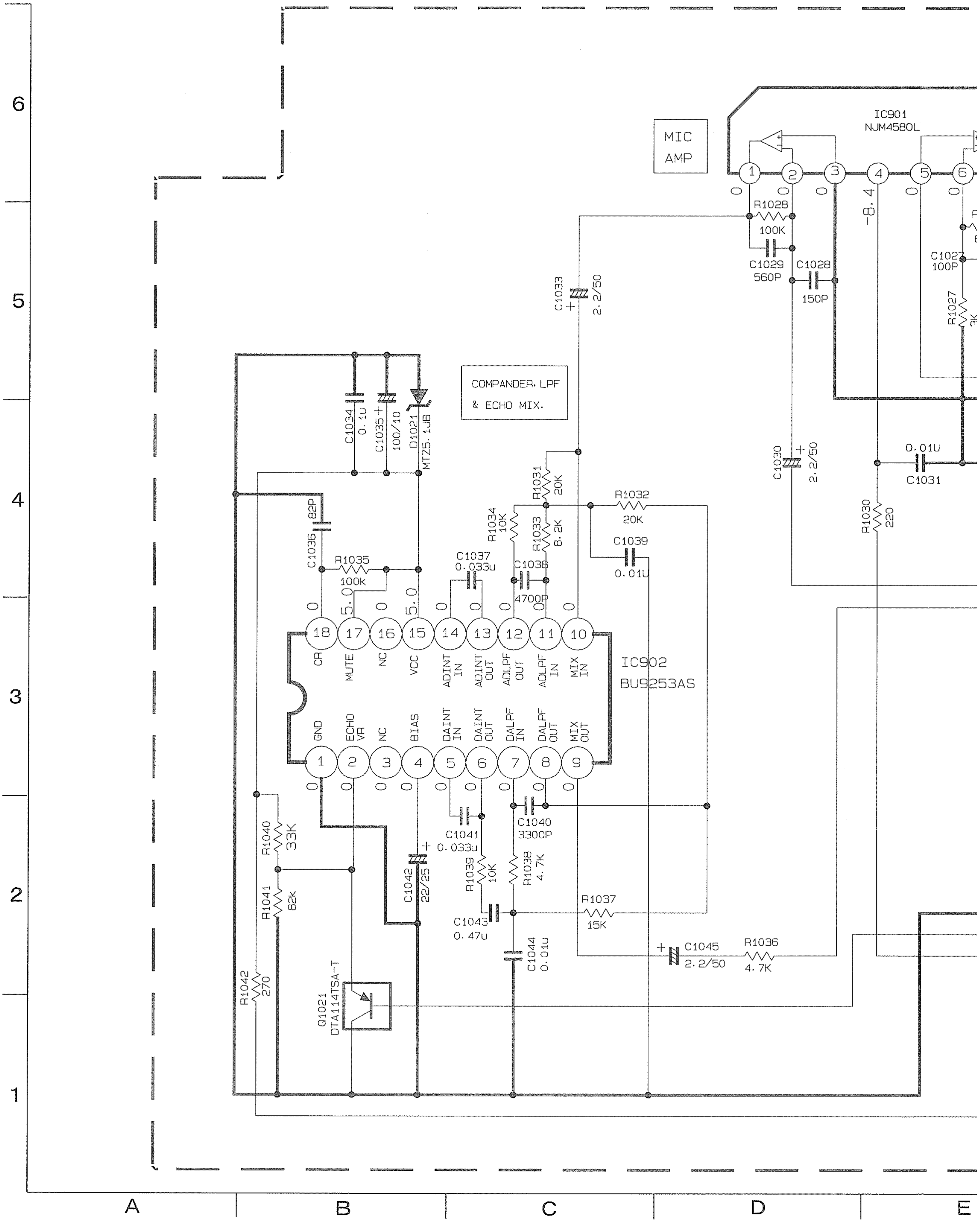
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
   CONDITION --- TAPE PB MODE
2. UNLESS OTHERWISE SPECIFIED
   RESISTORS ARE 1/6W ,5% CARBON RESISTOR.
   ALL RESISTANCE VALUES ARE IN OHM(Ω).
   ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
   ALL CAPACITANCE VALUES ARE IN µF(P=pF).
   ALL INDUCTANCE VALUES ARE IN µH(m=mH).
   ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (µF)/RATED VOLTAGE (V).
   ALL DIODES ARE 1SS133
3. ALL TACT SWITCHES ARE QSW0674-001Z UNLESS OTHERWISE SPECIFIED
4. ALL LEDs ARE SLR-342MC-T UNLESS OTHERWISE SPECIFIED

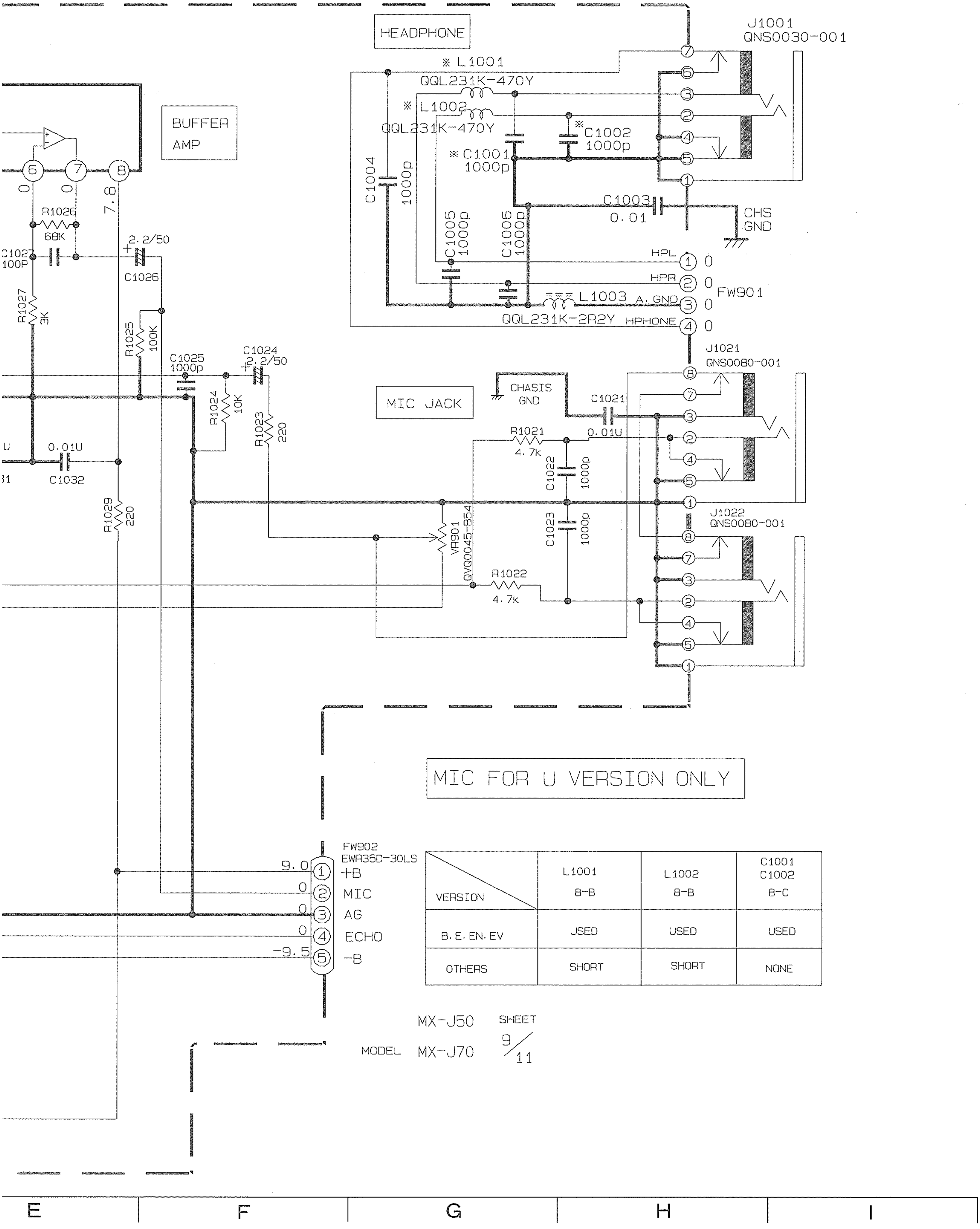
MX-J70
MODEL MX-J50

SHEET 8/11

E | F | G | H | I

MIC & Headphone Section

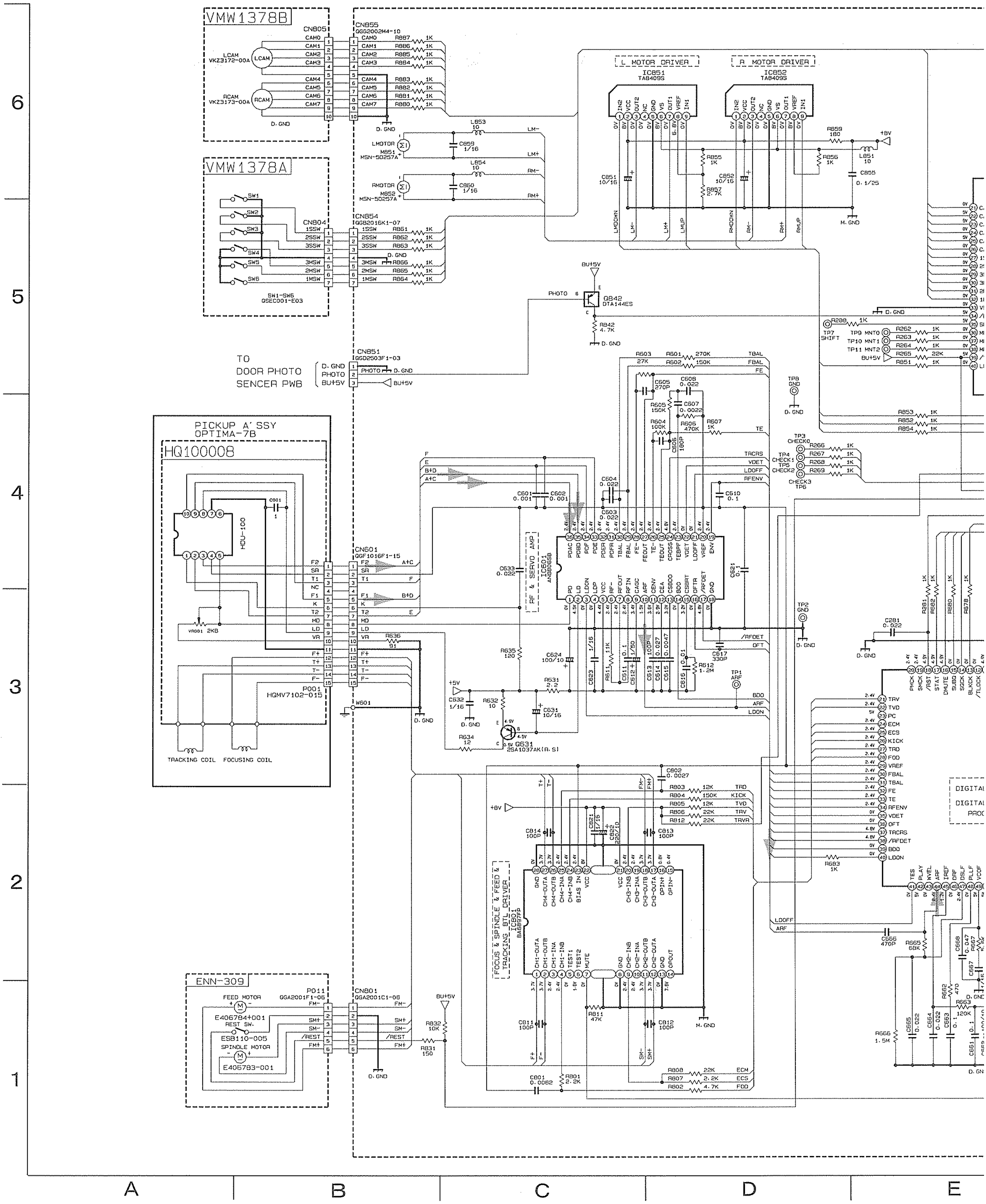

6
5
4
3
2
1
A
B
C
D
E
MIC AMP
IC901
NJM4580L
1
2
3
4
5
6
0
0
0
-8.4
0
0
R1028
100K
C1029
560P
C1028
150P
C1027
100P
R1027
3K
C1033
2.2/50
COMPANDER, LPF & ECHO MIX.
C1034
0.1u
C1035
100/10
D1021
MTZ5.1JB
C1030
2.2/50
0.01U
C1031
R1030
220
R1031
20K
R1032
20K
R1034
10K
R1033
8.2K
C1039
0.01U
C1036
82P
R1035
100k
C1037
0.033u
C1038
4700P
0
5.0
0
5.0
0
0
0
0
0
18
17
16
15
14
13
12
11
10
CR
MUTE
NC
VCC
ADINT IN
ADINT OUT
ADLPF OUT
ADLPF IN
MIX IN
IC902
BU9253AS
GND
ECHO VR
NC
BIAS
DAINT IN
DAINT OUT
DALPF IN
DALPF OUT
MIX OUT
1
2
3
4
5
6
7
8
9
0
0
0
0
0
0
0
0
0
C1041
0.033u
C1040
3300P
R1040
33K
R1041
82k
C1042
22/25
R1039
10K
R1038
4.7K
C1043
0.47u
R1037
15K
C1044
0.01u
C1045
2.2/50
R1036
4.7K
R1042
270
Q1021
DTA114TSA-T

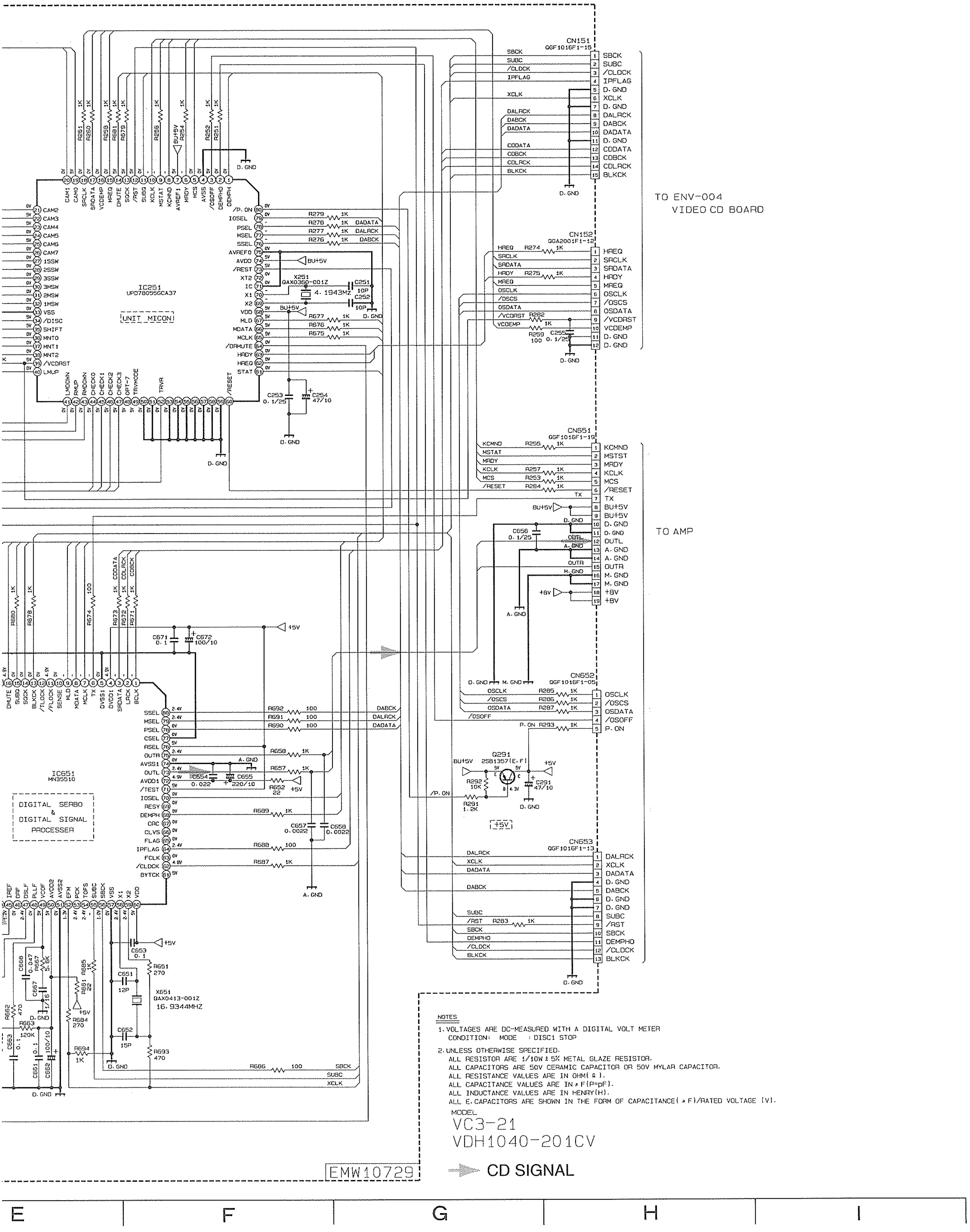

HEADPHONE
J1001
QNS0030-001
※ L1001
QQL231K-470Y
※ L1002
QQL231K-470Y
※C1002
1000p
※C1001
1000p
C1004
1000p
C1003
0.01
CHS
GND
C1005
1000p
C1006
1000p
HPL
HPR
A. GND
HPHONE
L1003
QQL231K-2R2Y
FW901
BUFFER
AMP
R1026
68K
C1027
100P
2.2/50
C1026
R1027
3K
R1025
100K
C1025
1000p
C1024
2.2/50
R1024
10K
R1023
220
0.01U
C1032
R1029
220
7.8
MIC JACK
CHASIS
GND
C1021
0.01U
R1021
4.7k
C1022
1000p
C1023
1000p
VR901
QVQ0045-B54
R1022
4.7k
J1021
QNS0080-001
J1022
QNS0080-001
MIC FOR U VERSION ONLY
FW902
EWR35D-30LS
9.0
0
0
0
-9.5
+B
MIC
AG
ECHO
-B
E
F
G
H
I

VERSION	L1001 8-B	L1002 8-B	C1001 C1002 8-C
B. E. EN. EV	USED	USED	USED
OTHERS	SHORT	SHORT	NONE

MODEL MX-J50
MX-J70
SHEET 9/11

CD Servo & CD Mechanism Control Section


VMW1378B
CN805
LCAM VKZ3172-00A
RCAM VKZ3173-00A
CAM0
CAM1
CAM2
CAM3
CAM4
CAM5
CAM6
CAM7
D.GND
CN855 QGG2002M4-10
L MOTOR DRIVER
IC851 TA8409S
R MOTOR DRIVER
IC852 TA8409S
LMOTOR M851 MSN-50257A
RMOTOR M852 MSN-50257A
LM-
LM+
RM-
RM+
VMW1378A
SW1
SW2
SW3
SW4
SW5
SW6
CN804
SW1-SW6 QSEC001-E03
CN854 QGB2016K1-07
1SSW
2SSW
3SSW
3MSW
2MSW
1MSW
BU+5V
PHOTO
Q842 DTA144ES
R842 4.7K
M.GND
+8V
TO DOOR PHOTO SENCER PWB
CN851 QGG2503F1-03
PICKUP A'SSY OPTIMA-7B
HQ100008
HOU-100
VR001 2KB
P001 HQMV7102-015
TRACKING COIL
FOCUSING COIL
CN601 QGF1016F1-15
RF & SERVO AMP
IC601 AN8806SB
Q631 2SA1037AK(R,S)
W601
FOCUS & SPINDLE & FEED & TRACKING BTL DRIVER
IC801 BA6897FP
ENN-309
FEED MOTOR E406784-001
REST SW. ESB110-005
SPINDLE MOTOR E406783-001
P011 GGA2001F1-06
CN801 QGA2001C1-06
FM-
SM+
SM-
/REST
FM+
TP1 ARF
TP2 GND
TP3 CHECK0
TP4 CHECK1
TP5 CHECK2
TP6 CHECK3
TP7 SHIFT
TP8 GND
TP9 MNT0
TP10 MNT1
TP11 MNT2
DIGITAL
DIGITAL
PROC
6
5
4
3
2
1
A
B
C
D
E


CN151
QGF1016F1-15
1 SBCK
2 SUBC
3 /CLDCK
4 IPFLAG
5 D.GND
6 XCLK
7 D.GND
8 DALRCK
9 DABCK
10 DADATA
11 D.GND
12 CDDATA
13 CDBCK
14 CDLRCK
15 BLKCK
TO ENV-004
VIDEO CD BOARD
CN152
QGA2001F1-12
1 HREQ
2 SRCLK
3 SRDATA
4 HRDY
5 MREQ
6 OSCLK
7 /OSCS
8 OSDATA
9 /VCDRST
10 VCDEMP
11 D.GND
12 D.GND
IC251
UPD78055GCA37
UNIT MICON
X251
QAX0360-001Z
4.1943MZ
CN651
QGF1016F1-19
1 KCMND
2 MSTST
3 MRDY
4 KCLK
5 MCS
6 /RESET
7 TX
8 BU+5V
9 BU+5V
10 D.GND
11 D.GND
12 OUTL
13 A.GND
14 A.GND
15 OUTR
16 M.GND
17 M.GND
18 +8V
19 +8V
TO AMP
CN552
QGF1016F1-05
1 OSCLK
2 /OSCS
3 OSDATA
4 /OSOFF
5 P.ON
Q291
2SB1357(E,F)
IC651
MN35510
DIGITAL SERBO
&
DIGITAL SIGNAL
PROCESSER
X651
QAX0413-001Z
16.9344MHZ
CN653
QGF1016F1-13
1 DALRCK
2 XCLK
3 DADATA
4 D.GND
5 DABCK
6 D.GND
7 D.GND
8 SUBC
9 /RST
10 SBCK
11 DEMPHO
12 /CLDCK
13 BLKCK
EMW10729
E
F
G
H
I

NOTES

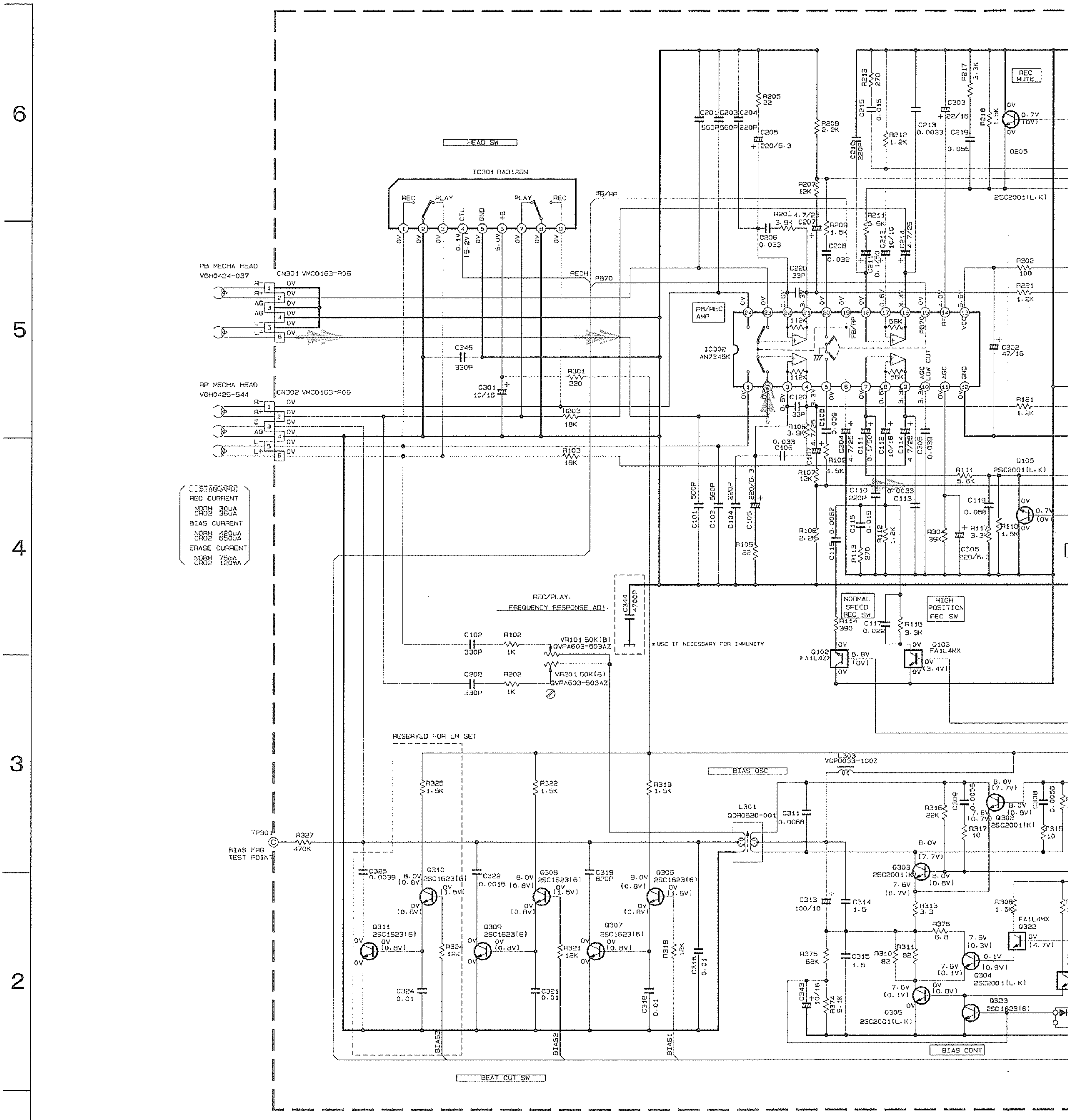
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER
CONDITION: MODE : DISC1 STOP

2. UNLESS OTHERWISE SPECIFIED.
ALL RESISTOR ARE 1/10W ± 5% METAL GLAZE RESISTOR.
ALL CAPACITORS ARE 50V CERAMIC CAPACITOR OR 50V MYLAR CAPACITOR.
ALL RESISTANCE VALUES ARE IN OHM(Ω).
ALL CAPACITANCE VALUES ARE IN μF(P=pF).
ALL INDUCTANCE VALUES ARE IN HENRY(H).
ALL E.CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(μF)/RATED VOLTAGE (V).

MODEL
VC3-21
VDH1040-201CV

➡ CD SIGNAL

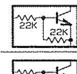
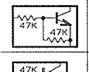
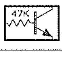
Head Amplifier & Mechanism Control Section

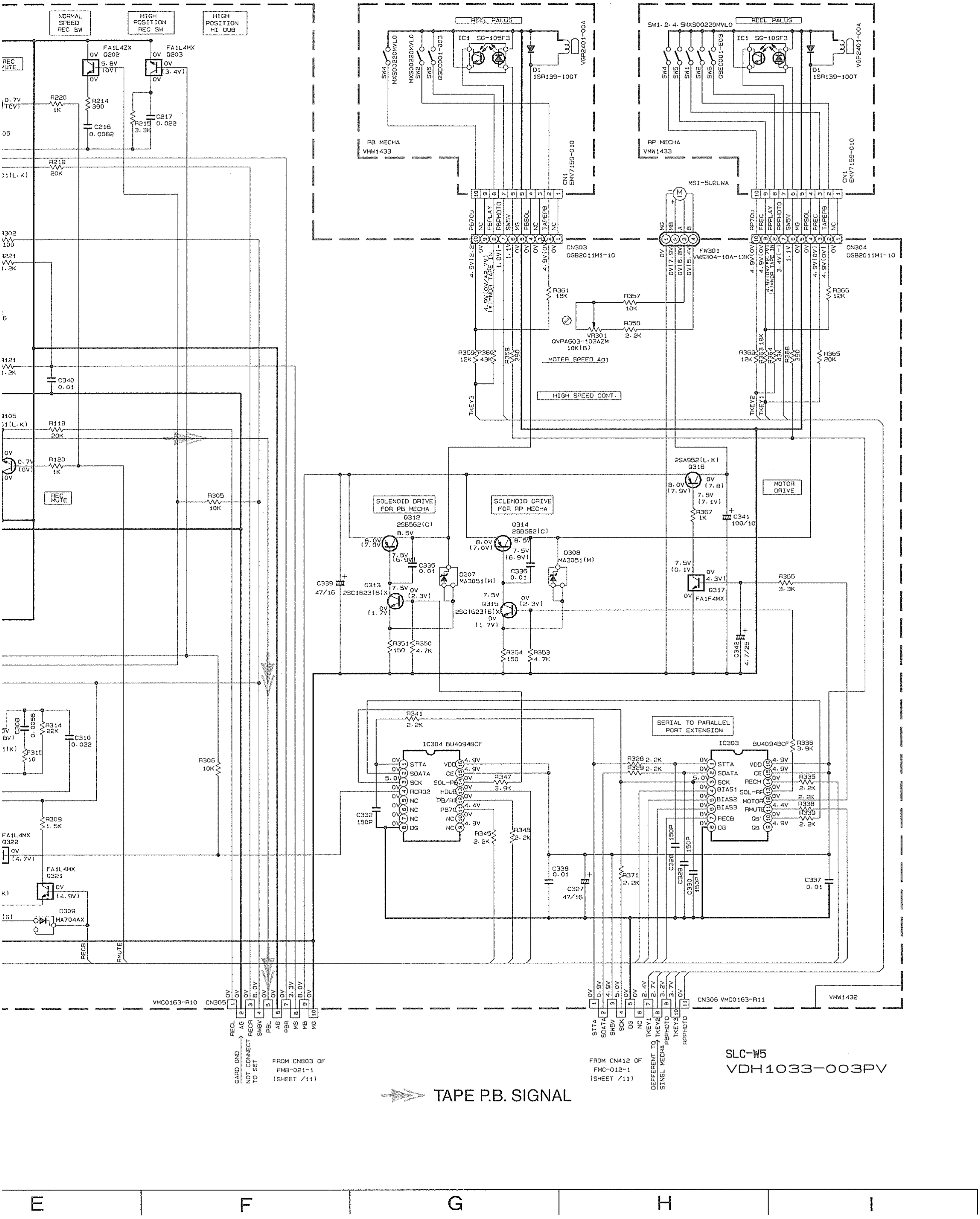

HEAD SW
IC301 BA3126N
REC
PLAY
CTL
GND
+B
PB/RP
PB MECHA HEAD
VGH0424-037
CN301 VMC0163-R06
RP MECHA HEAD
VGH0425-544
CN302 VMC0163-R06
RECH
PB70
C345
330P
C301
10/16
R301
220
R203
18K
R103
18K
PB/REC AMP
IC302
AN7345K
[STANDARD]
REC CURRENT
NORM 30uA
CRO2 36uA
BIAS CURRENT
NORM 420uA
CRO2 650uA
ERASE CURRENT
NORM 75mA
CRO2 120mA
REC/PLAY.
FREQUENCY RESPONSE ADJ.
C344
4700P
*USE IF NECESSARY FOR IMMUNITY
VR101 50K(B)
QVPA603-503AZ
VR201 50K(B)
QVPA603-503AZ
NORMAL SPEED REC SW
HIGH POSITION REC SW
Q102
FA1L4Z
Q103
FA1L4MX
REC MUTE
Q205
2SC2001(L.K)
Q105
RESERVED FOR LW SET
BIAS OSC
L303
VQP0033-100Z
L301
QQR0620-001
TP301
BIAS FRQ TEST POINT
R327
470K
Q310
2SC1623(6)
Q311
2SC1623(6)
Q308
2SC1623(6)
Q309
2SC1623(6)
Q306
2SC1623(6)
Q307
2SC1623(6)
Q302
2SC2001(K)
Q303
2SC2001(K)
Q304
2SC2001(L.K)
Q305
2SC2001(L.K)
Q322
FA1L4MX
Q323
2SC1623(6)
BIAS3
BIAS2
BIAS1
BIAS CONT
BEAT CUT SW
6
5
4
3
2
A
B
C
D
E

NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER
OR OSCILLOSCOPE WITHOUT INPUT SIGNAL. ( ) IS INVERT MODE
2. UNLESS OTHERWISE SPECIFIED
ALL RESISTANCE VALUES ARE IN OHM( )Ω
ALL CAPACITORS ARE CERAMIC CAPACITOR
ALL CAPACITANCE VALUES ARE IN F(P=pF).
ALL INDUCTANCE VALUES ARE IN H(m=mH).
ALL E. CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).
╪ PLYPROPYLENE CAPACITOR

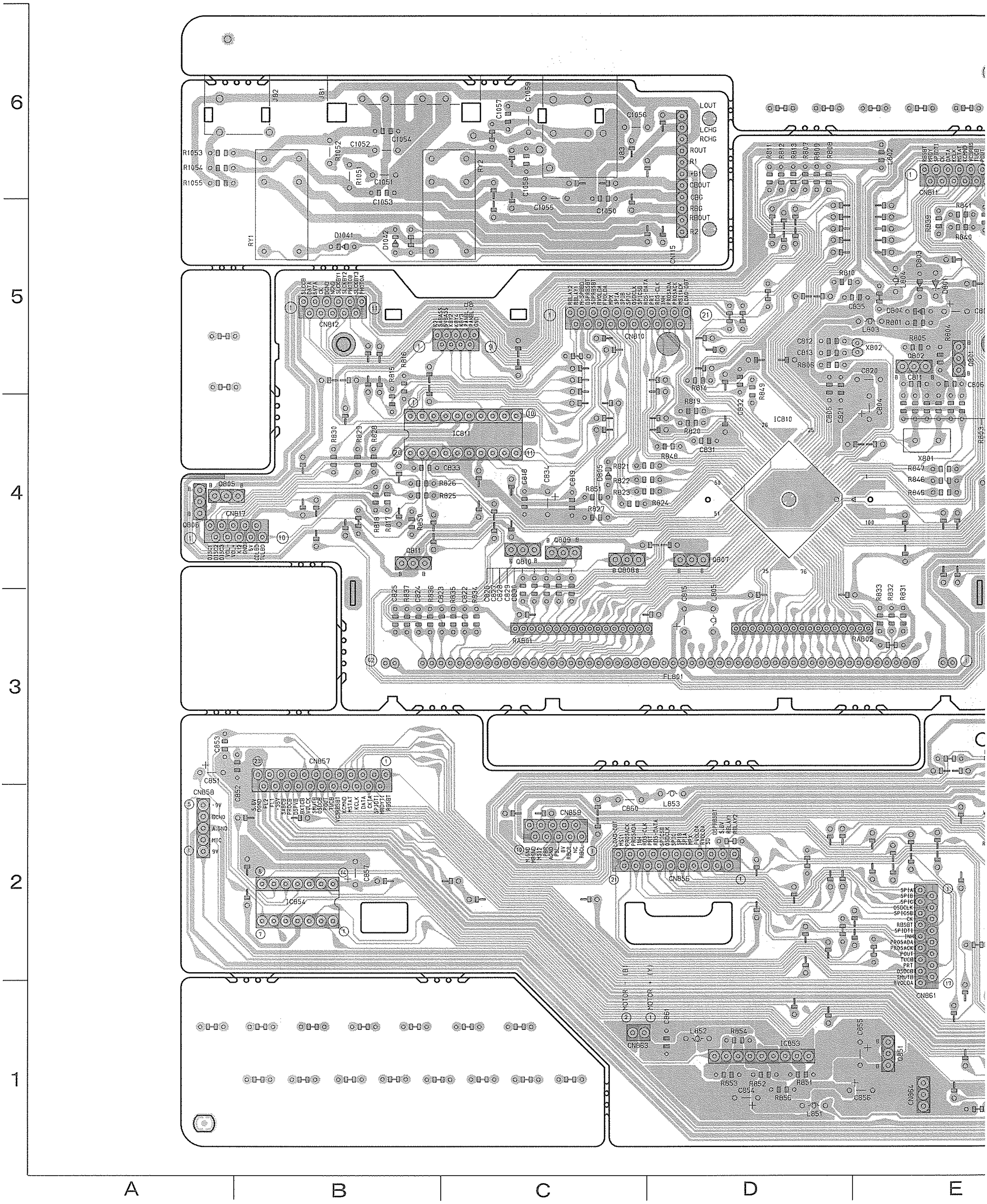
TABLE 1. DIGITAL TR LIST

PART. NO	CONSTRVCTION	REF. NO
FA1F4M	 22K 22K	Q317
FA1L4M	 47K 47K	Q103/Q203 Q321/Q322
FA1L4Z	 47K	Q102/Q202

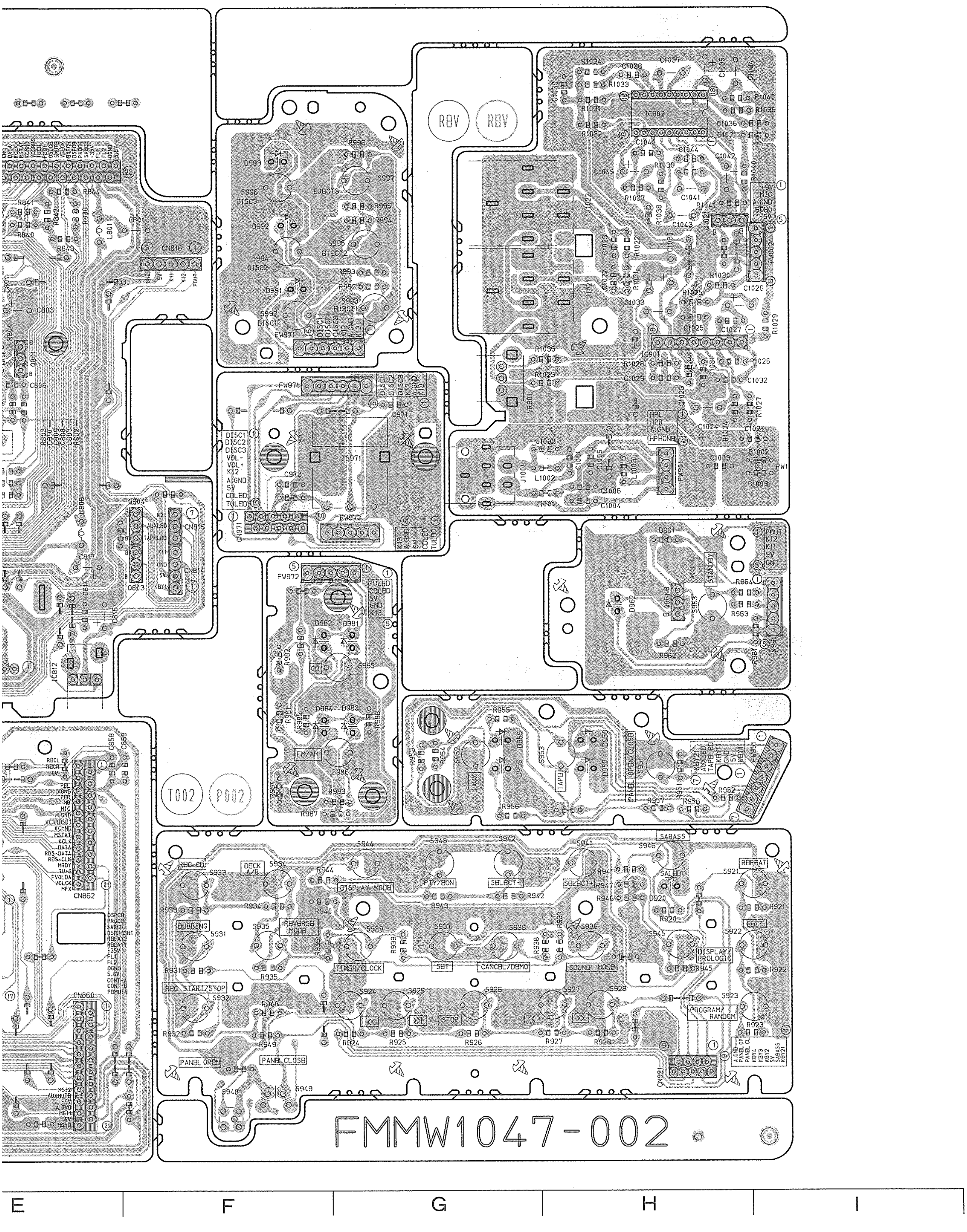

NORMAL SPEED REC SW
HIGH POSITION REC SW
HIGH POSITION HI DUB
REC MUTE
FA1L4ZX Q202
FA1L4MX Q203
R220 1K
R214 390
C216 0.0082
R215 3.3K
C217 0.022
R219 20K
R302 100
R221 1.2K
R121 1.2K
C340 0.01
R119 20K
R120 1K
R305 10K
R306 10K
R309 1.5K
C308 0.0056
R314 22K
C310 0.022
R315 10
FA1L4MX Q322
FA1L4MX Q321
D309 MA704AX
RECB
RMUTE
REEL PALUS
IC1 SG-105F3
D1 1SR139-100T
VGP2401-00A
SW4 MXS00220MVL0
SW2
SW6 QSEC001-E03
PB MECHA VMW1433
CN1 EMV7159-010
SW1, 2, 4, 5MXS00220MVL0
RP MECHA VMW1433
MSI-5U2LWA
PB70u NC PBPLAY PBPHOTO SWSV MG PBSOL NC TAPEPB NC
CN303 GGB2011M1-10
MG MB A B
FW301 VWS304-10A-13K
RP70u FREC RPPLAY RPPHOTO SWSV MG RPSOL REC TAPEPB NC
CN304 GGB2011M1-10
R361 18K
R357 10K
R358 2.2K
VR301 QVPA603-103AZM 10K(B)
MOTER SPEED Adj
HIGH SPEED CONT.
R359 12K
R360 43K
R366 12K
R365 20K
TKEY3
TKEY2
TKEY1
2SA952(L.K) Q316
MOTOR DRIVE
R367 1K
C341 100/10
SOLENOID DRIVE FOR PB MECHA
Q312 2SB562(C)
SOLENOID DRIVE FOR RP MECHA
Q314 2SB562(C)
C335 0.01
D307 MA3051(M)
C336 0.01
D308 MA3051(M)
C339 47/16
Q313 2SC1623(6)X
Q315 2SC1623(6)X
Q317 FA1F4MX
R355 3.3K
C342 4.7/25
R351 150
R350 4.7K
R354 150
R353 4.7K
R341 2.2K
IC304 BU4094BCF
STTA SDATA SCK RCR02 NC NC NC DG
VDD CE SOL-PB HDUB PB/RP PB70 NC NC
R347 3.9K
C332 150P
R345 2.2K
R348 2.2K
C338 0.01
C327 47/16
SERIAL TO PARALLEL PORT EXTENSION
IC303 BU4094BCF
R336 3.9K
R328 2.2K
R329 2.2K
STTA SDATA SCK BIAS1 BIAS2 BIAS3 RECB DG
VDD CE RECH SOL-RP MOTOR RMUTE Qs' Qs
R335 2.2K
R338 2.2K
R339 2.2K
R371 2.2K
C328 150P
C329 150P
C330 150P
C337 0.01
VMC0163-R10 CN305
RECL AG RECR SWBV PBL AG PBR MS MB MG
GARD GND
NOT CONNECT TO SET
FROM CN803 OF FMB-021-1 (SHEET /11)
CN306 VMC0163-R11
STTA SDATA SWBV SCK DG NC TKEY1 TKEY2 PBPHOTO TKEY3 RPPHOTO
FROM CN412 OF FMC-012-1 (SHEET /11)
DEFFERENT TO SINGL MECHA
VMW1432
SLC-W5
VDH1033-003PV
TAPE P.B. SIGNAL
E
F
G
H
I

Printed Circuit Board

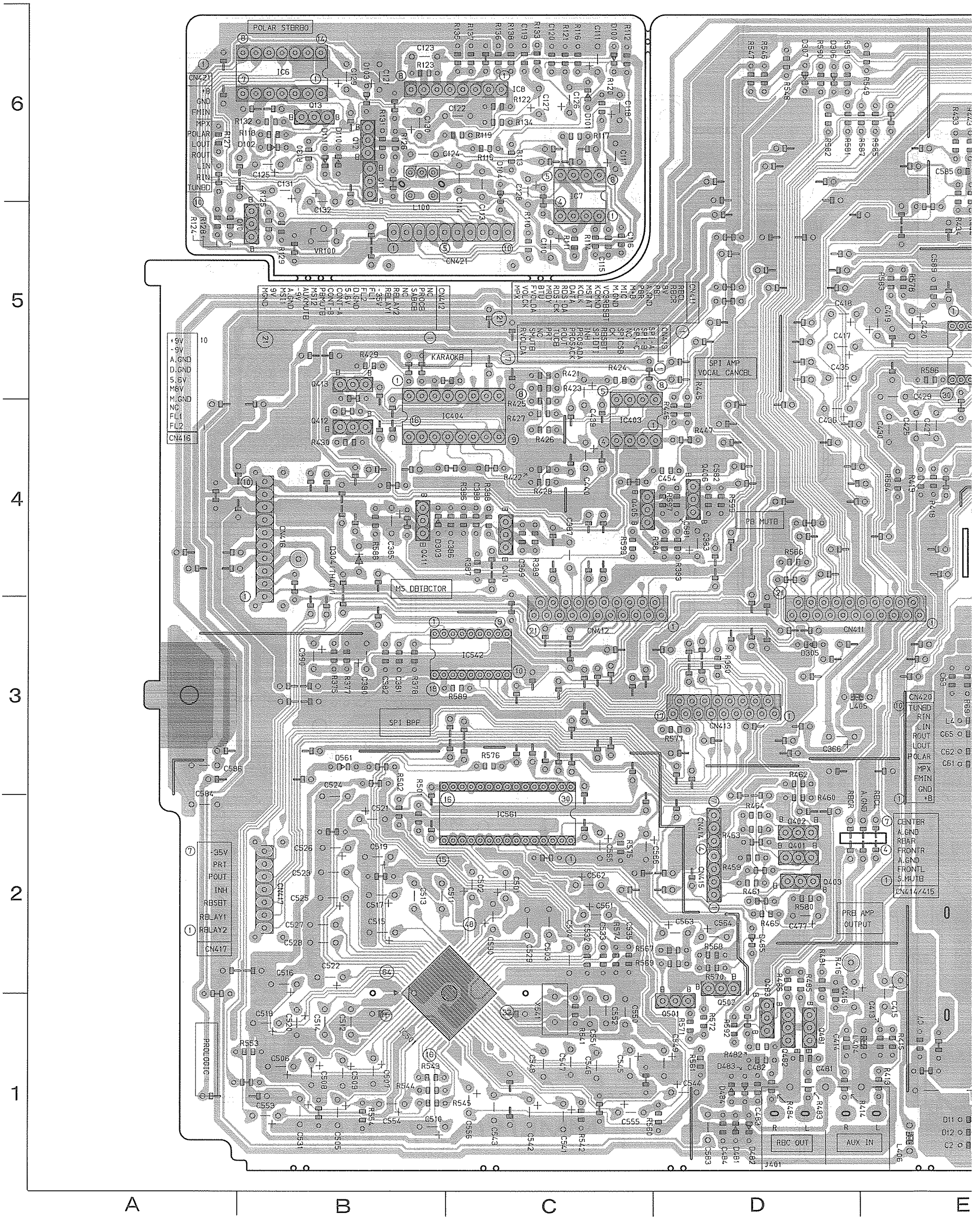
■System Control & Operation Switch Board

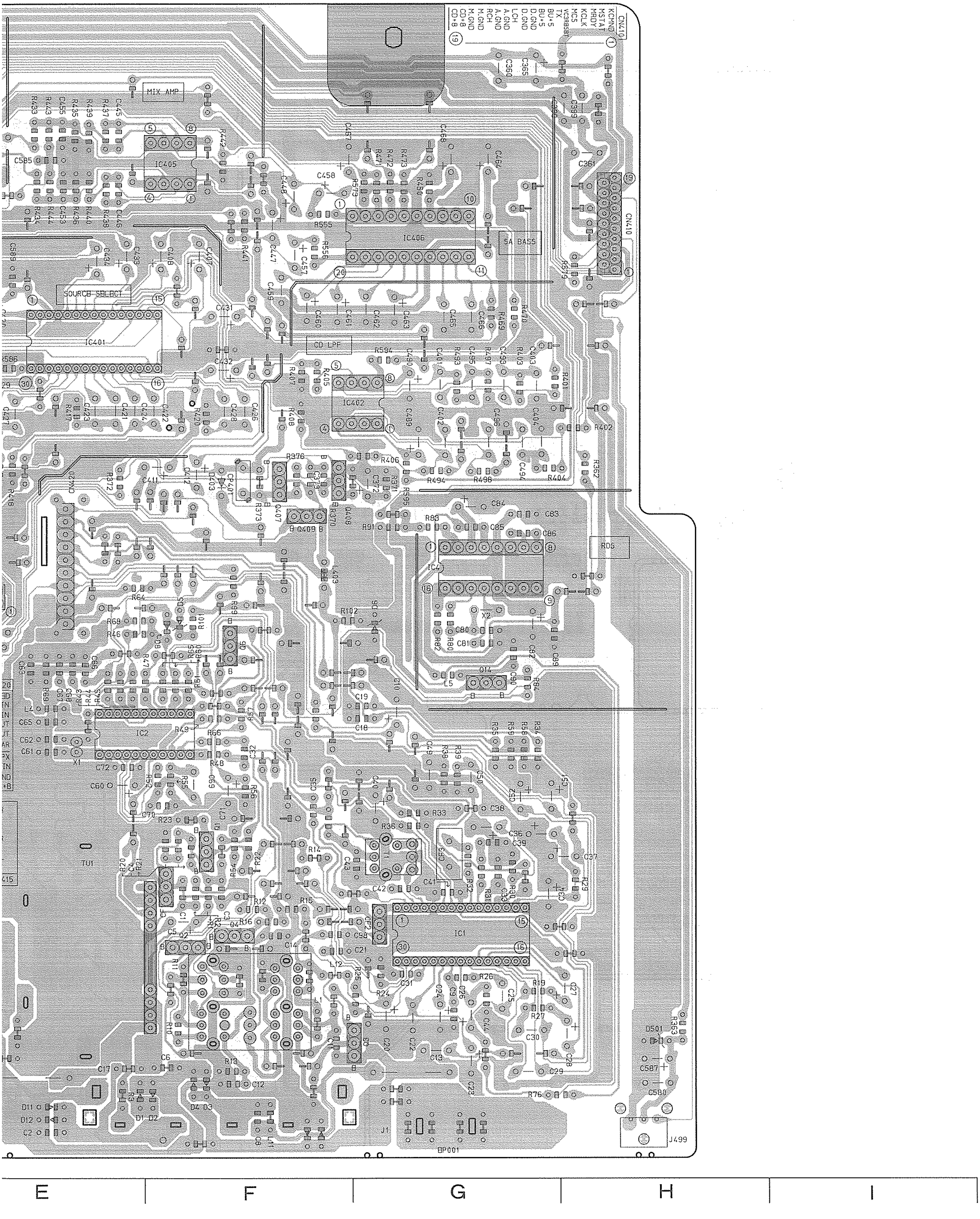


6
5
4
3
2
1
A
B
C
D
E
RY1
RY2
CN115
LOUT
LCHG
RCHG
ROUT
CBOUT
RBOUT
CN812
CN810
CN811
CN817
IC811
IC810
Q805
Q806
Q807
Q808
Q809
Q810
Q811
RA801
RA802
FL801
X801
X802
CN857
CN858
CN859
CN856
CN861
CN863
CN864
IC854
IC853
L851
L852
L853
MOTOR -
MOTOR +

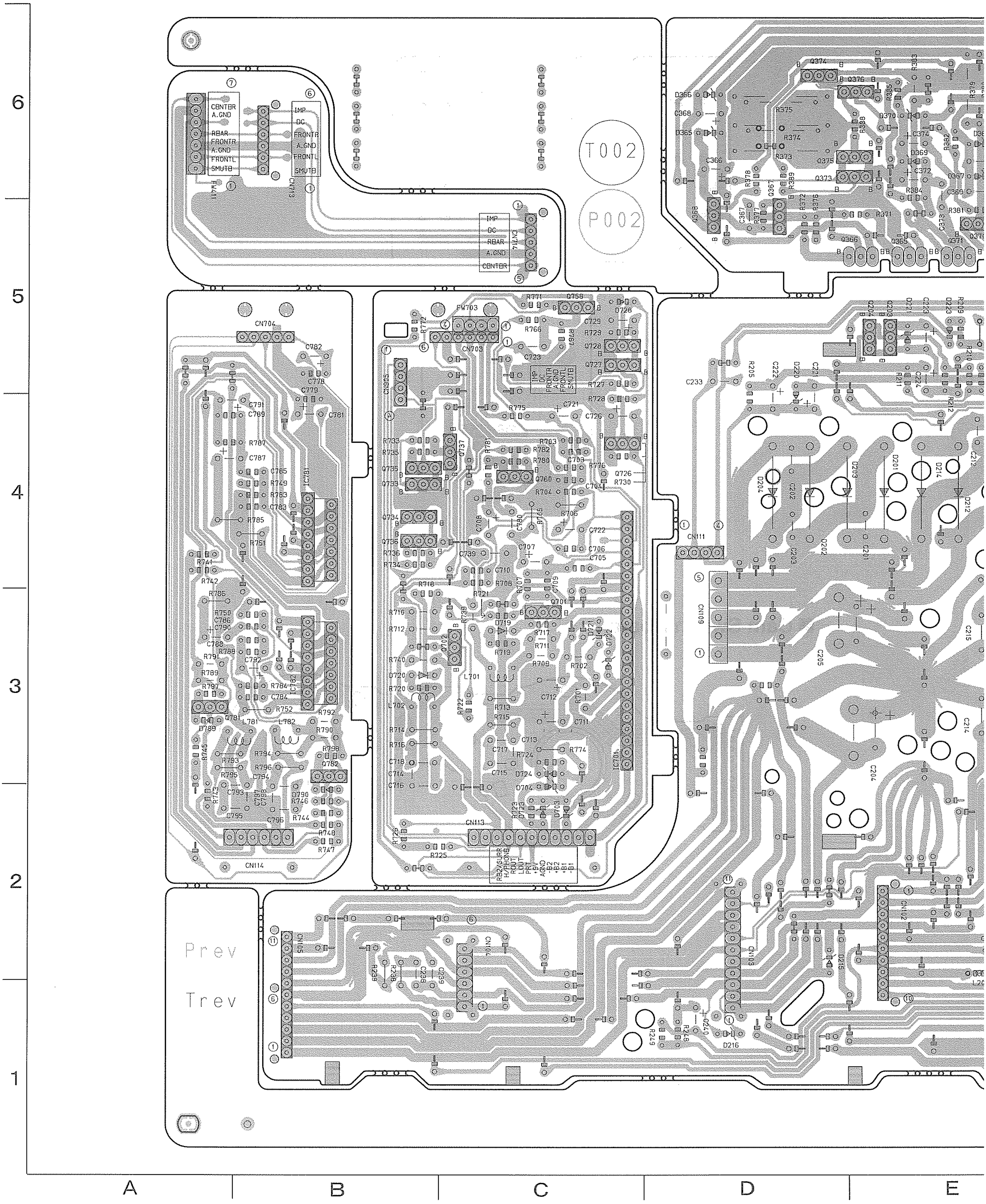

FMMW1047-002
IC902
IC901
IC812
CN816
CN815
CN814
CN862
CN860
CN921
FW971
FW972
FW961
FW951
FW902
FW901
J5971
J1001
VR901
PW1
T002
P002
RBV
DISC1
DISC2
DISC3
BJECT1
BJECT2
BJECT3
STANDBY
CD
FM/AM
AUX
TAPE
PANEL OPEN/CLOSE
REC CD
DECK A/B
DISPLAY MODE
PTY/EON
SELECT-
SELECT+
SABASS
REPEAT
DUBBING
REVERSE MODE
TIMER/CLOCK
SET
CANCEL/DEMO
SOUND MODE
DISPLAY/ PROLOGIC
EDIT
REC START/STOP
STOP
PROGRAM/ RANDOM
PANEL OPEN
PANEL CLOSE
HPL
HPR
A.GND
HPHONE
MIC
ECHO
E
F
G
H
I

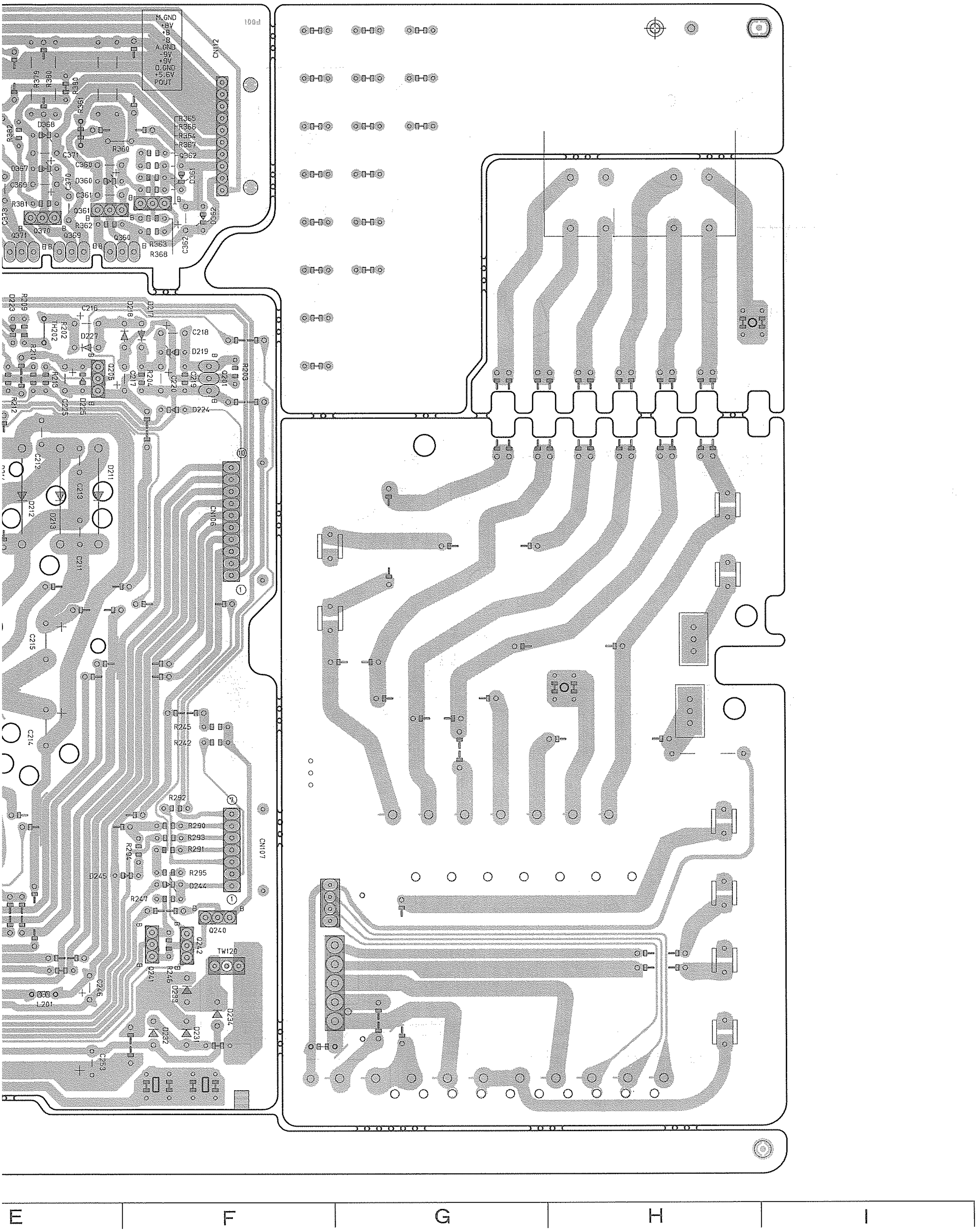
Function, Tuner, Main Board


6
5
4
3
2
1
A
B
C
D
E
POLAR STEREO
IC6
IC7
IC8
Q13
L100
VR100
CN421
+9
GND
FMIN
MPX
POLAR
LOUT
ROUT
LIN
RIN
TUNED
CN412
CN411
CN416
+9V
-9V
A.GND
D.GND
5.6V
M8V
M.GND
NC
FL1
FL2
KARAOKE
IC404
IC403
Q412
Q413
SPI AMP
VOCAL CANCEL
PB MUTE
MS DETECTOR
IC542
SPI BPF
CN413
L405
CN420
TUNED
RIN
LIN
ROUT
LOUT
POLAR
MPX
FMIN
GND
+B
IC561
IC501
CN414
CN415
CENTER
A.GND
REAR
FRONTR
A.GND
FRONTL
S.MUTE
CN414/415
Q401
Q402
Q403
CN417
-35V
PRT
POUT
INH
RBSBT
RELAY1
RELAY2
PRE AMP
OUTPUT
PROLOGIC
Q501
Q502
Q481
Q482
Q483
RBC OUT
AUX IN
J401
L406

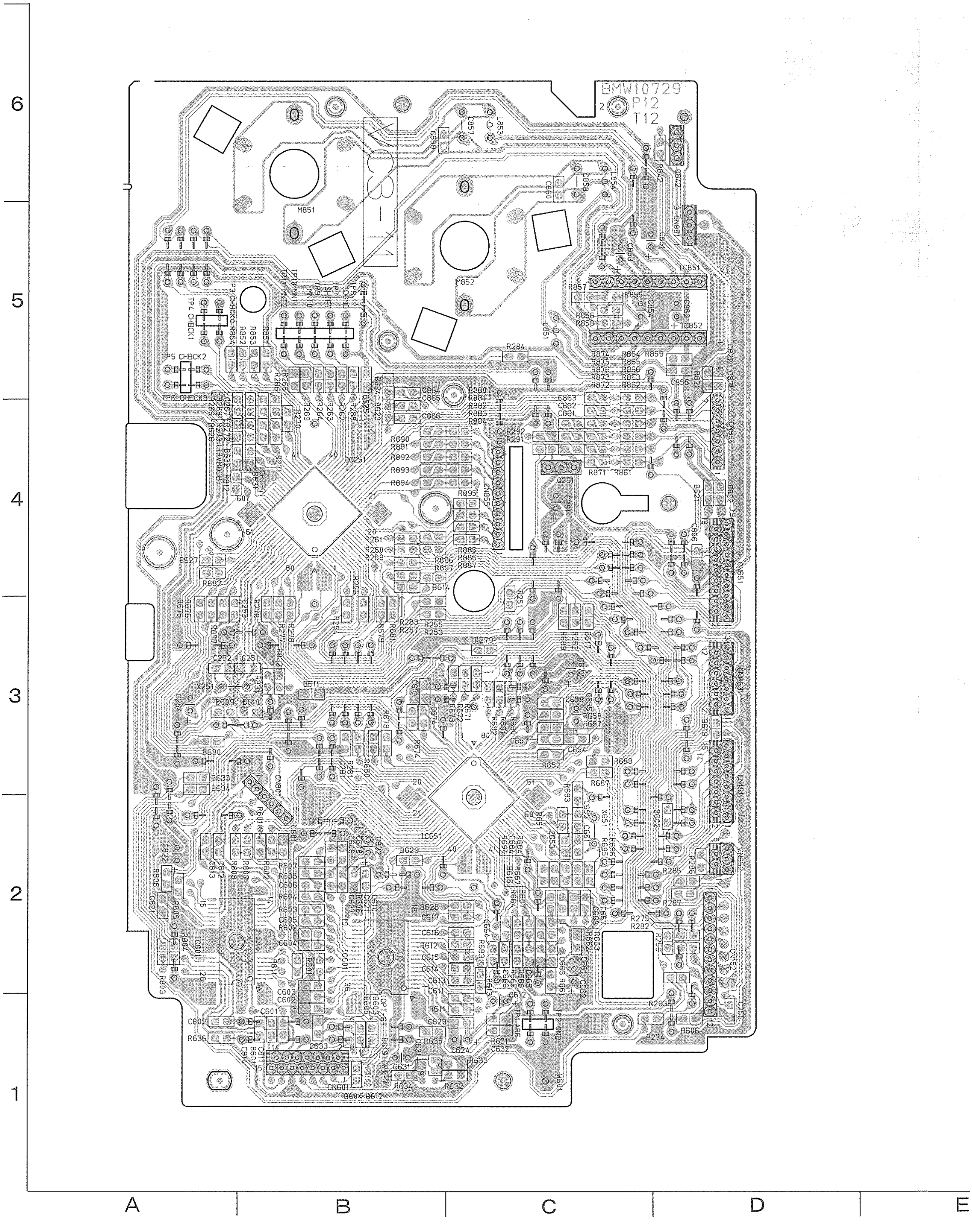

CN410
KCMND
MSTAT
MRDY
KCLK
MCS
VCSRBBR
TX
BU+5
BU+5
D.GND
D.GND
LCH
A.GND
A.GND
RCH
M.GND
M.GND
CD+8
CD+8
MIX AMP
IC405
IC406
SA BASS
SOURCE SELECT
IC401
CD LPF
IC402
IC4
RDS
X2
Q14
L5
IC2
X1
TU1
IC1
T1
J1
BP001
J499
D501
C587
C580
R363
R362
R402
R404
Q407
Q408
Q409
CP401
D403
C84
C83
C85
C86
R83
R91
R102
L409
E
F
G
H
I

Regulator & Power Amplifier Board

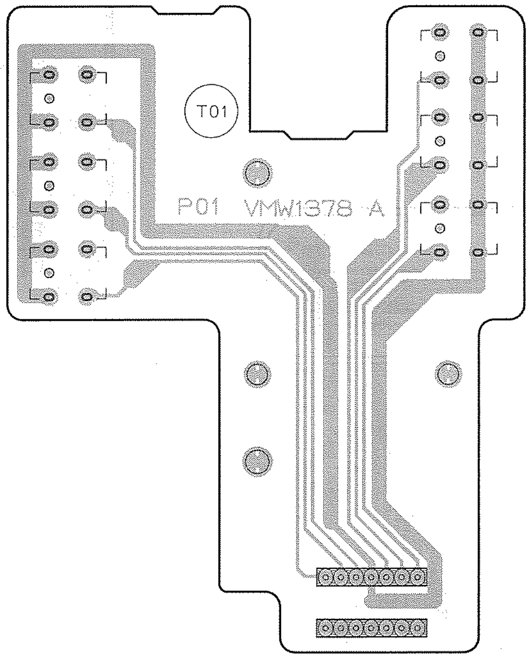

6
5
4
3
2
1
A
B
C
D
E
T002
P002
CN711
CENTER
A.GND
RBAR
FRONTR
A.GND
FRONTL
SMUTB
CN713
IMP
DC
FRONTR
A.GND
FRONTL
SMUTB
CN712
IMP
DC
RBAR
A.GND
CENTER
CN704
CN703
FW703
CN705
IC781
IC782
CN114
CN113
IC701
CN111
CN109
CN105
CN107
CN103
CN102
RB2/SURR
H/PHONE
ROUT
LOUT
PRT
GND
AGND
-B2
+B2
+B1
-B1
Prev
Trev
Q374
Q376
Q375
Q373
Q366
Q365
Q371
Q367
Q368
R375
R374
R373
R371
R384
R381
R382
D366
D365
D369
D370
C368
C366
C374
C372
C369
Q756
Q728
Q727
Q726
Q760
Q737
Q735
Q733
Q734
Q736
Q702
Q781
Q782
L701
L702
L781
L782
D204
D201
D202
D203
D209
D212
D214
D216
C201
C202
C203
C204
C205
C214
C215
C233
R205
R249
R248
C240


M.GND
+8V
+B
-B
A.GND
-9V
+9V
D.GND
+5.6V
POUT
CN112
R379
R380
R380
R361
R382
D368
R365
R366
R364
R367
C362
R360
C371
C360
D367
D360
D361
C369
C370
C361
R381
Q361
C373
Q370
Q369
Q371
R362
Q360
Q362
R363
R368
C362
D223
R209
C216
D218
D217
R202
TH202
D227
C218
D219
R210
R213
Q205
C217
R204
C220
C219
Q201
R203
R212
C225
D225
D224
C212
D211
C213
D212
D213
CN106
C211
C215
⑩
①
C214
R245
R242
R292
⑦
R290
R293
R291
R294
CN107
D245
R295
D244
R247
①
Q240
Q242
Q241
R246
TW120
D233
D234
L201
C246
D232
D231
C253
E
F
G
H
I

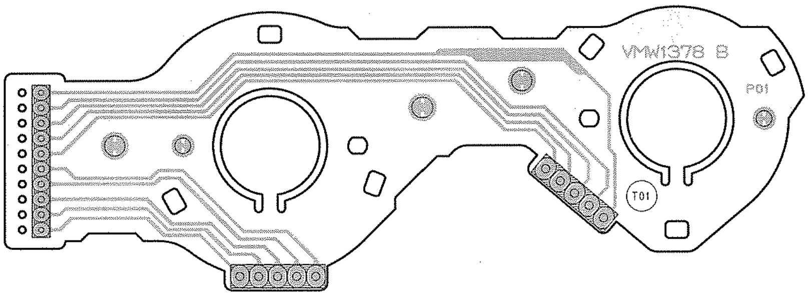
CD Servo Control Board


6
5
4
3
2
1
A
B
C
D
E
BMW10729
P12
T12
M851
M852
L853
L854
C857
C859
C858
C860
IC851
IC852
R857
R855
R856
R858
CN854
CN855
CN651
CN653
CN151
CN652
CN152
CN801
CN601
IC251
IC651
IC601
Q291
X251
X651
TP4 CHECK1
TP5 CHECK2
TP6 CHECK3
R284
R251
R279
C291
C251
C252
C254
C253
C259
C255
B627
B611
B609
B610
B630
B633
B634
B614
B629
B628
B604 B612
R293
R274
B606
C802
R636
R806
R803
R804
C822
C821
C629
C624
R632
R633
R634
R635
C631
C632
R631
R611
C611

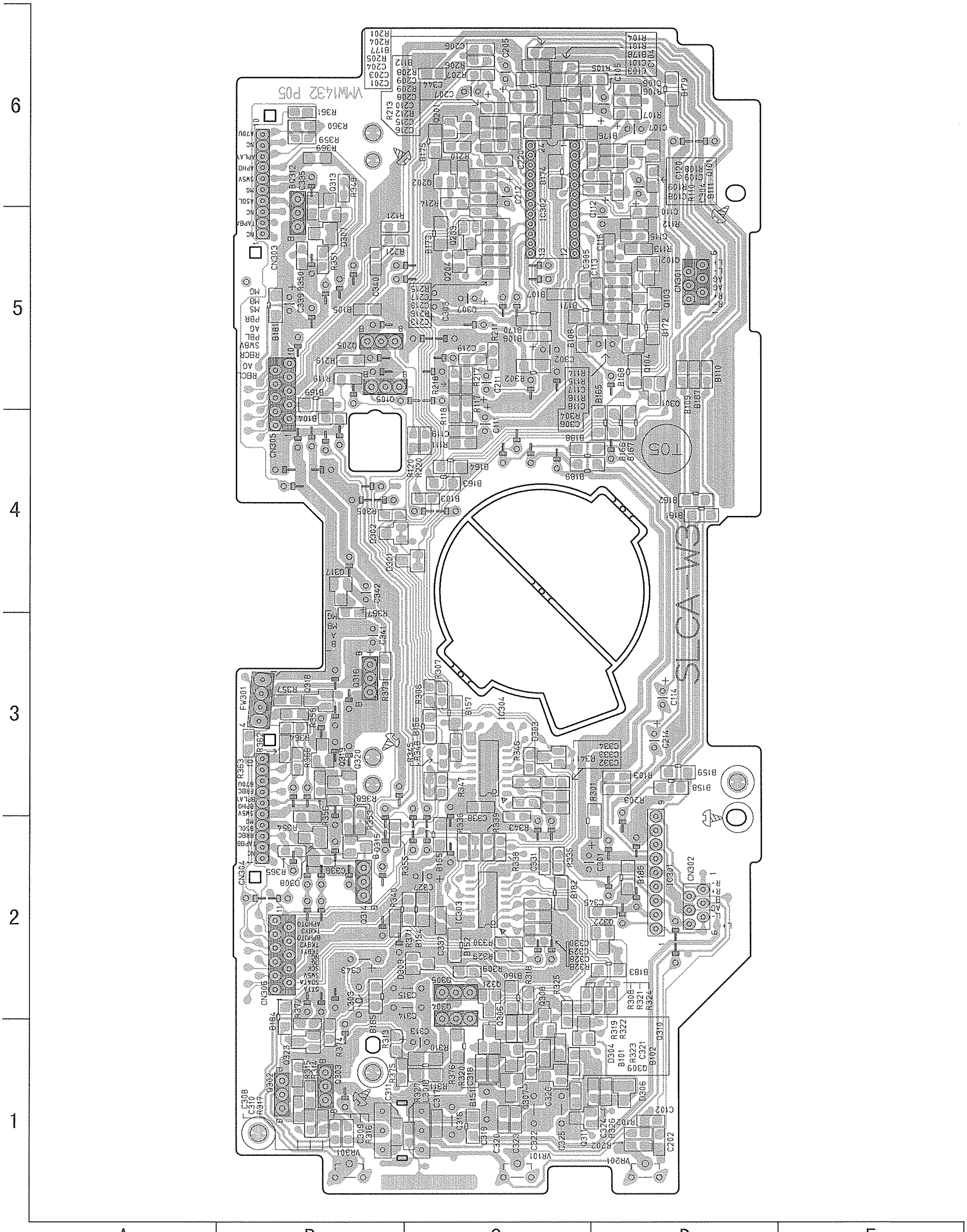
■ CD Tray Section Switch Board


T01
P01 VMW1378 A

■ Cam Switch Board


VMW1378 B
P01
T01

Cassette Mechanism Board


6
5
4
3
2
1
A
B
C
D
E
VMW1432 P05
SLCA-W3
T05

<<MEMO>>

PARTS LIST

[MX-J50
MX-J56]

* All printed circuit boards and its assemblies are not available as service parts.

Areas Suffix

MX-J50
J ---------------------------- U.S.A.
C ------------------------- Canada
U -------------------- Other Areas
US -------------------- Singapore
UX ------------------ Saudi Arabia
UT ------------------------- Taiwan
UP -------------------------- Korea
UY --------------------- Argentina
A ------------------------ Australia

MX-J56
C ------------------------ Canada

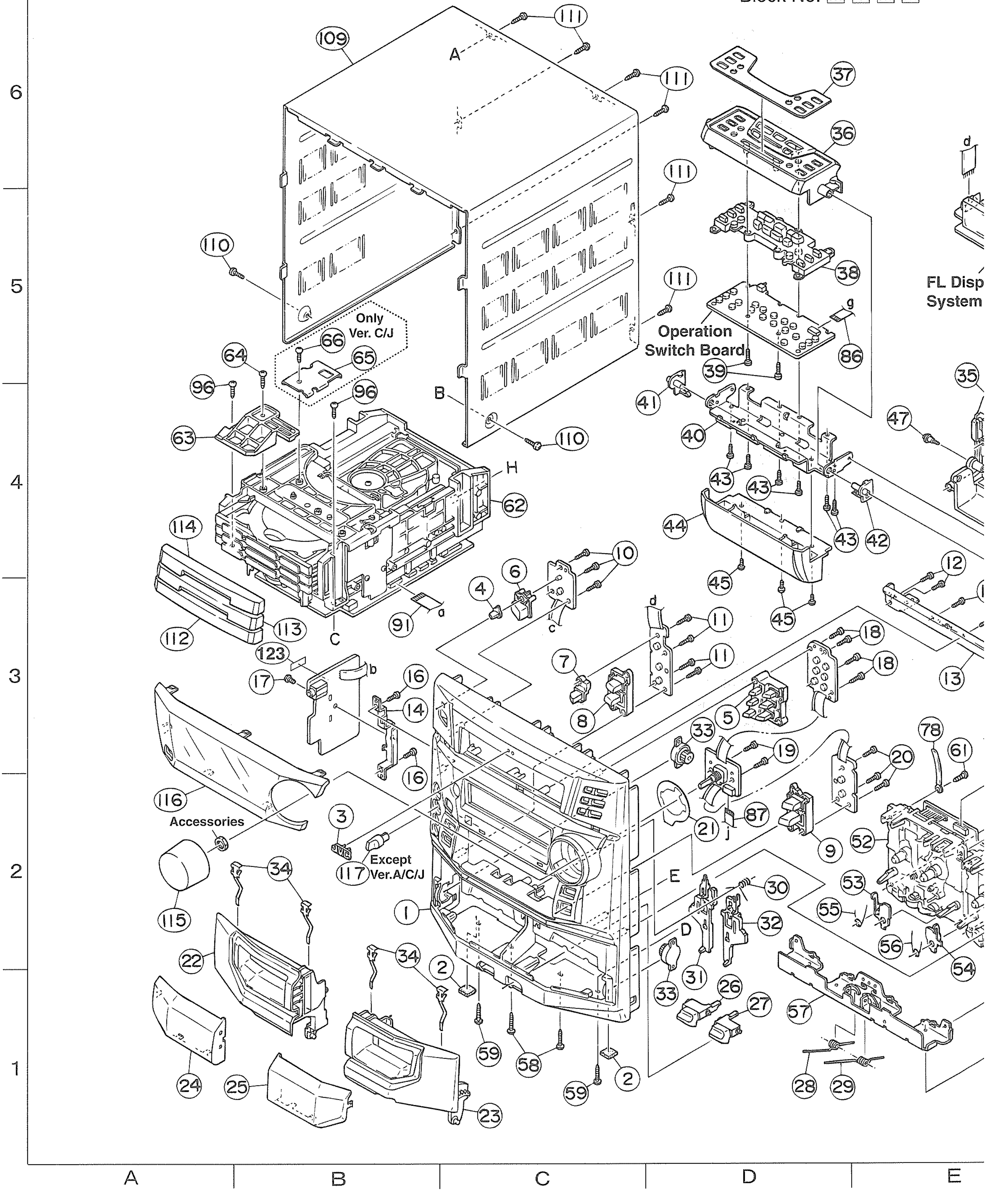
- Contents -

Exploded View of General Assembly and Parts List ---------------------------------- 3-3
CD Changer Mechanism Ass'y and Parts List -- 3-6
CD Mechanism Ass'y and Parts List --- 3-8
Cassette Mechanism Ass'y and Parts List -- 3-9
Electrical Parts List -- 3-11
Packing Materials and Accessories Parts List -------------------------------------- 3-24

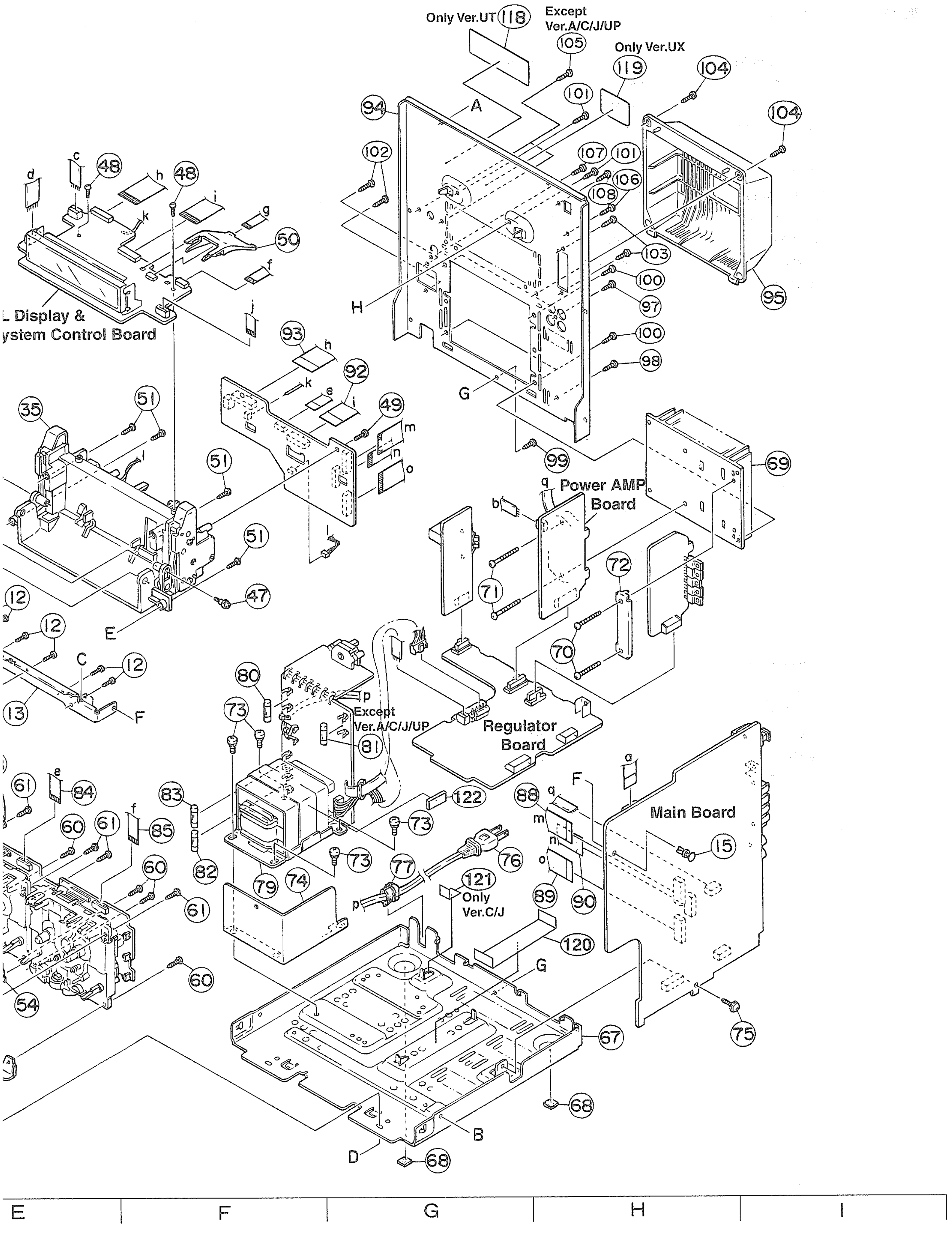
<<MEMO>>

Exploded View of General Assembly and Parts List

Block No. M 1 M M



109
111
A
37
36
110
Only Ver. C/J
66
65
64
96
63
38
FL Disp
System
Operation Switch Board
39
86
35
41
40
47
B
H
62
43
42
44
114
10
6
4
12
45
91
a
c
d
11
112
113
C
18
123
b
17
16
14
7
8
5
13
3
33
19
20
78
61
116
Accessories
21
87
j
9
52
117
Except Ver.A/C/J
34
115
E
30
1
53
55
22
D
32
56
54
2
31
33
26
27
57
59
58
24
25
23
28
29
6
5
4
3
2
1
A
B
C
D
E


Only Ver.UT
118
Except Ver.A/C/J/UP
105
Only Ver.UX
119
104
101
94
A
104
102
107
101
106
108
103
100
97
95
100
98
H
G
99
69
L Display &
ystem Control Board
48
48
c
d
h
i
k
g
50
f
j
93
h
92
k
e
i
49
m
n
o
35
51
51
51
47
l
l
E
12
12
12
C
13
F
q
Power AMP
Board
b
71
72
70
80
73
p
Except
Ver.A/C/J/UP
81
Regulator
Board
61
84
e
83
122
88
q
F
Main Board
m
n
o
15
60
61
85
f
73
73
76
82
79
74
77
121
Only
Ver.C/J
89
90
60
61
p
120
60
G
54
67
75
68
B
D
68
E
F
G
H
I

■ Parts List(General Assembly)

Block No.M1MM

⚠	Item	Parts Number	Parts Name	Q'ty	Description	Area
	1	GV10010-016A	FRONT PANEL	1	MX-J50	C,J
		GV10010-017A	FRONT PANEL	1	MX-J50	U,UP,US,UT,UX,UY
		GV10010-018A	FRONT PANEL	1	MX-J50	A
		GV10010-018A	FRONT PANEL	1	MX-J56	C
	2	E75896-001	SPACER	2		
	3	VJD5429-001	JVC MARK	1		
	4	GV40016-001A	STANDBY INDICATOR	1		
	5	GV30047-008A	CD BUTTON ASSY	1		
	6	GV30029-006A	POWER BUTTON	1		A,U,UP,US,UT,UX,UY
		GV30029-007A	POWER BUTTON	1		C,J
	7	GV30045-004A	PUSH BUTTON	1		
	8	GV20033-001A	SOURCE BUTTON(A)	1		
	9	GV20034-001A	SOURCE BUTTON(B)	1		
	10	QYSDSF2608Z	SCREW	3		
	11	QYSDSF2608Z	SCREW	4		
	12	QYSDSF2608Z	SCREW	6		
	13	GV30030-001A	STAY BRACKET	1		
	14	GV40030-001A	PHONE BRACKET	1		
	15	FMYH4004-001	RIVET	1		
	16	QYSDSF2608Z	SCREW	2		
	17	QYSBST3006Z	TH TAP SCREW	1		
	18	QYSDSF2608Z	SCREW	4		
	19	QYSDSF2608Z	SCREW	2		
	20	QYSDSF2608Z	SCREW	3		
	21	GV40043-001A	VOLUME SHEET	1		
	22	GV20022-004A	CASSETTE HOLDER(L)	1		
	23	GV20023-004A	CASSETTE HOLDER(R)	1		
	24	GV20024-001A	CASSETTE LENS(L)	1		
	25	GV20025-001A	CASSETTE LENS(R)	1		
	26	GV30026-004A	EJECT BUTTON(A)	1		
	27	GV30027-004A	EJECT BUTTON(B)	1		
	28	FMKW4009-001	HOLDER SPRING(A)	1		
	29	FMKW4010-001	HOLDER SPRING(B)	1		
	30	FMKW4011-001	LEVER SPRING	1		
	31	FMKS3002-003	EJECT LEVER(A)	1		
	32	FMKS3003-003	EJECT LEVER(B)	1		
	33	GV40034-001A	DAMPER ASSY	2		
	34	VKY4180-401	CASSETTE SPRING	4		
	35	GV10014-003A	CASE ASSY	1		
	36	GV30039-004A	MOVING PANEL(A)	1	MX-J50	
		GV30039-006A	MOVING PANEL(A)	1	MX-J56	
	37	GV30040-014A	CONTROL SHEET	1		
	38	GV30041-005A	CONTROL BUTTON ASSY	1		
	39	QYSDSF2608Z	SCREW	2		
	40	GV30042-002A	PANEL BRACKET	1		
	41	GV40028-001A	PANEL HOLDER(L)	1		
	42	GV40028-002A	PANEL HOLDER(R)	1		
	43	QYSDSF2608Z	SCREW	6		
	44	GV30043-004A	MOVING PANEL(B)	1	MX-J50	
		GV30043-005A	MOVING PANEL(B)	1	MX-J56	

■ Parts List(General Assembly)

Block No.M1MM

⚠	Item	Parts Number	Parts Name	Q'ty	Description	Area
	45	QYSBST2606Z	T.SCREW	3		
	47	VKZ4341-204	SPECIAL SCREW	2		
	48	QYSDSF2608Z	SCREW	2		
	49	QYSDSF2608Z	SCREW	1		
	50	GV30054-001A	BOARD HOLDER	1		
	51	QYSSSF3012Z	TAP SCREW	4		
	52	--------------	CASSETTE MECHA	1		
	53	FMKL4012-004	EJECT SAFETY(A)	1		
	54	FMKL4013-001	EJECT SAFETY(B)	1		
	55	FMKW4007-001	EJECT SPRING(A)	1		
	56	FMKW4008-001	EJECT SPRING(B)	1		
	57	GV20030-001A	HOLDER BRACKET	1		
	58	QYSBSG3010E	T.SCREW	2		
	59	QYSBSG3010E	T.SCREW	2		
	60	QYSBSG3010Z	T.SCREW	4		
	61	QYSBSF3010Z	SCREW	4		
	62	--------------	CHANGER MECHA	1		
	63	E309662-001SM	DISC STOPPER	1		
	64	QYSBSF3008Z	SCREW	1		
	65	FMKL4008-001	LOD STOPPER	1		C,J
	66	QYSBSF3008Z	SCREW	1		C,J
	67	GV10011-001A	CHASSIS BASE	1		
	68	E75896-006	FELT SPACER	2		
⚠	69	GV30044-002A	HEAT SINK	1		
	70	QYSBSG3014E	T.SCREW	2		
	71	QYSBSG3020E	TAPPING SCREW	2		
	72	GV40029-001A	LEAF SPRING	1		
	73	QYSDSTL4008Z	SPECIAL SCREW	4		
	74	LE30469-001A	SHIELD PLATE	1		
	75	QYSBSGG3008E	T.SCREW	1		
⚠	76	EMP7000-200	POWER CORD	1		UP
⚠		QMPD220-200-JD	POWER CORD	1		C,J
⚠		QMPG020-244-JC	POWER CORD	1		A
⚠		QMPK090-205-JN	POWER CORD	1		U,US
⚠		QMPR110-200-JN	POWER CORD	1		UT,UX
⚠		QMPR160-200-JC	POWER CORD	1		UY
	77	QZW0033-001	STRAIN RELIEF	1		
	78	VKZ4001-110S	WIRE HOLDER	1		
⚠	79	QQT0251-001	POWER TRANSF	1	T001	C,J
⚠		QQT0251-002	POWER TRANSF	1	T001	A
⚠		QQT0251-003	POWER TRANSF	1	T001	U,UP,US,UT,UX,UY
⚠	80	QMF51E2-1R25-J1	FUSE	1	F001	A,UP
⚠		QMF51E2-2R5-J1	FUSE	1	F001	U,US,UT,UX,UY
⚠		QMF51U1-3R15-J1	FUSE	1	F001	C,J
⚠	81	QMF51E2-1R25-J1	FUSE	1	F003	U,US,UT,UX,UY
⚠	82	QMF51E2-3R15-J1	FUSE	1	F101	A,U,UP,US,UT,UX,UY
⚠		QMF51U1-4R0-J1	FUSE	1	F101	C,J
⚠	83	QMF51E2-3R15-J1	FUSE	1	F102	A,U,UP,US,UT,UX,UY
⚠		QMF51U1-4R0-J1	FUSE	1	F102	C,J
	84	QUQ412-1014CJ	FLAT WIRE	1	FC854	

■ Parts List(General Assembly)

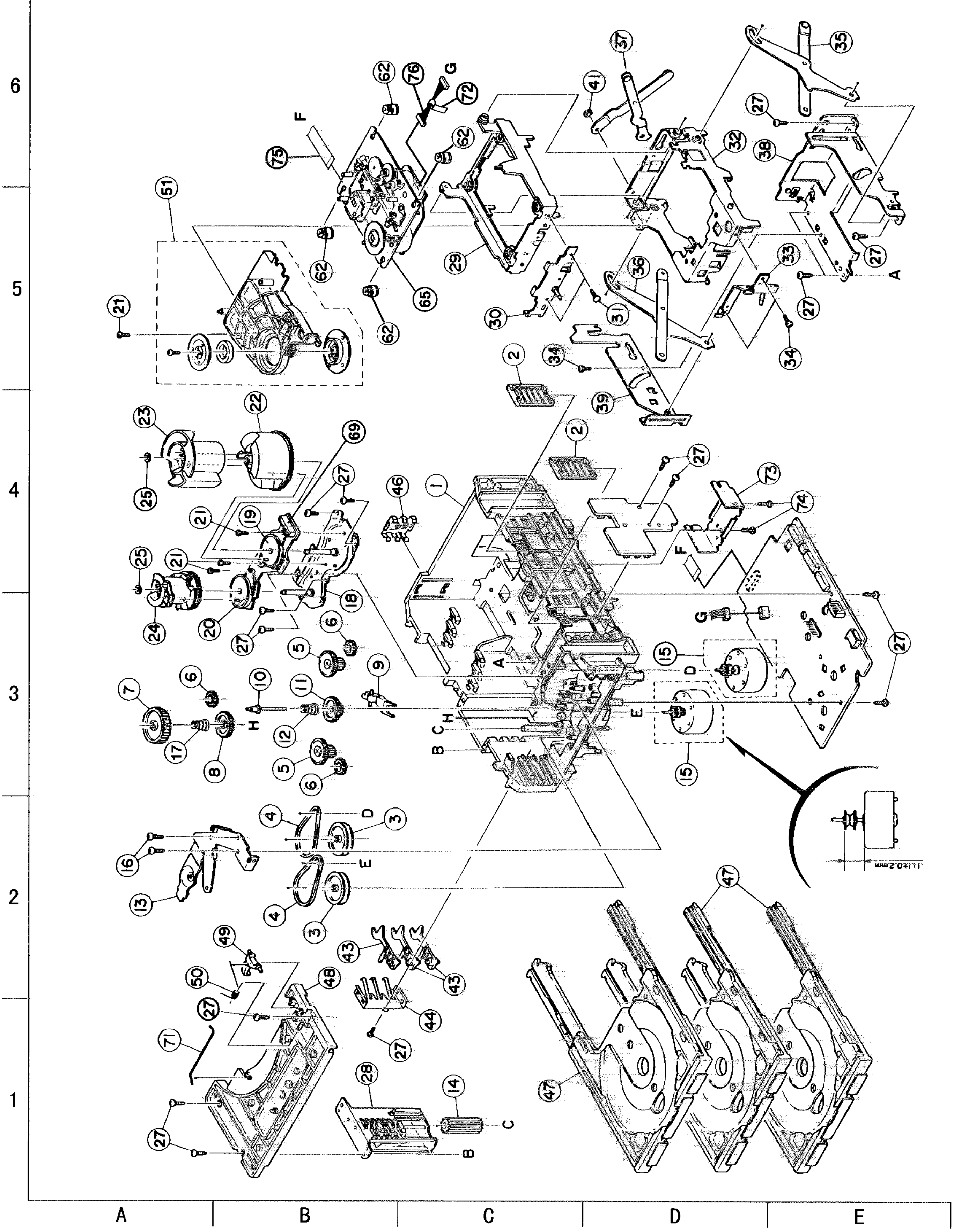
Block No.M1MM

⚠	Item	Parts Number	Parts Name	Q'ty	Description	Area
	85	QUQ412-1115DJ	FLAT WIRE	1	FC803	
	86	QUQ610-0915BJ	FFC WIRE	1	FC921	
	87	QUQ412-1012CJ	FLAT WIRE	1	FC971	
	88	QUQ412-2109CJ	FLAT WIRE	1	FC857	
	89	QUQ412-2109CJ	FLAT WIRE	1	FC855	
	90	QUQ412-1712CJ	FLAT WIRE	1	FC856	
	91	QUQ110-1916BJ	FLAT WIRE	1	FC410	
	92	QUQ412-2112CJ	FLAT WIRE	1	FC801	
	93	QUQ412-2308CJ	FLAT WIRE	1	FC802	
	94	GV10013-011A	REAR PANEL	1	MX-J50	C
		GV10013-012A	REAR PANEL	1	MX-J50	J
		GV10013-013A	REAR PANEL	1	MX-J50	U,US,UX,UY
		GV10013-014A	REAR PANEL	1	MX-J50	A
		GV10013-016A	REAR PANEL	1	MX-J50	UP
		GV10013-041A	REAR PANEL	1	MX-J50	UT
		GV10013-018A	REAR PANEL	1	MX-J56	C
	95	E207356-002SM	REAR COVER	1		
	96	QYSBSG3008Z	T.SCREW	2		
	97	QYSBSGY3008E	SPECIAL SCREW	1		
	98	QYSBSGY3008E	SPECIAL SCREW	1		
	99	QYSBSGY3008E	SPECIAL SCREW	1		
	100	QYSBSGY3008E	SPECIAL SCREW	4		
	101	QYSBSGY3008E	SPECIAL SCREW	2		
	102	QYSBSGY3008E	SPECIAL SCREW	2		
	103	QYSBSGY3008E	SPECIAL SCREW	2		
	104	QYSBSGY3008E	SPECIAL SCREW	2		
	105	QYSBSF3012E	SPECIAL SCREW (VOL.SEL./R.PANEL)	2		U,US,UT,UX,UY
	106	QYSBSGY3008E	SPECIAL SCREW	1		
	107	QYSBSGY3008E	SPECIAL SCREW	1		
	108	QYSBSGY3008E	SPECIAL SCREW	1		
	109	GV10012-001A/S/	METAL COVER	1		
	110	QYSDSG3006M	T.SCREW	2		
	111	QYSBSGY3008E	SPECIAL SCREW	6		
	112	GV30033-003A	CD FITTING 1	1	MX-J50	
		GV30033-004A	CD FITTING 1	1	MX-J56	
	113	GV30034-002A	CD FITTING 2	1	MX-J50	
		GV30034-003A	CD FITTING 2	1	MX-J56	
	114	GV30035-003A	CD FITTING 3	1	MX-J50	
		GV30035-004A	CD FITTING 3	1	MX-J56	
	115	GV30028-004A	VOLUME KNOB	1		
	116	GV20026-004A	WINDOW SCREEN	1	MX-J50	
		GV20026-006A	WINDOW SCREEN	1	MX-J56	
	117	GV40017-003A	MIC VOL.KNOB	1		U,UP,US,UT,UX,UY
	118	GV30059-005A	RATING LABEL	1		UT
	119	GV30057-002A	RATING LABEL	1		UX
	120	GV40048-001A	PROTECT SHEET(A)	1		
	121	GV40049-001A	PROTECT SHEET(B)	1		C,J
	122	FMYSH103-003	SPACER	1		
	123	FMYSH103-004	SPACER	1		

CD Changer Mechanism Ass'y and Parts List

Block No. M 2 M M

VC3-21M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■Parts List (CD Changer Mechanism)

BLOCK NO. M2MM□□□□

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	1	VKS1144-003	CHASSIS		1		
	2	VKS3698-003	TRAY GUIDE		2		
	3	VKS5532-003	PULLEY GEAR		2		
	4	VKB3000-164	BELT		2		
	5	VKS5505-003	GEAR B		2		
	6	VKS5506-002	GEAR C		3		
	7	VKS5507-002	CROSS GEAR U		1		
	8	VKS5508-002	CROSS GEAR L		1		
	9	VKS5510-003	SELECT LEVER		1		
	10	VKH5769-001	S.G.SHAFT		1		
	11	VKS5511-002	SELECT GEAR		1		
	12	VKW5155-003	COMP.SPRING	FOR SELECT GEAR	1		
	13	VKM3846-002	GEAR BRACKET		1		
	14	VKS5509-002MM	CYLINDER GEAR		1		
	15	MSN5D257A-SA2	D.C.MOTOR ASS'Y		2		
	16	QYSPSPD2616Z	SCREW	FOR MOTOR	2		
	17	LV40612-001A	COMP.SPRING		1		
	18	VKM3825-00AMM	C.G.BASE ASS'Y		1		
	19	VKZ3172-00ASS	CAM SW. R ASS'Y		1		
	20	VKZ3173-00ASS	CAM SW. L ASS'Y		1		
	21	QYSPST2606Z	SCREW		4		
	22	VKS2263-002MM	CAM R1		1		
	23	VKS2264-002MM	CAM R2		1		
	24	VKS2265-002MM	CAM GEAR L		1		
	25	WDL316050MM	SLIT WASHER		2		
	27	QYSBSF2608Z	T.SCREW		16		
	28	VKS3702-00FMM	DRIVE UNIT		1		
	29	VKS2247-004	MECHA HOLDER A		1		
	30	VKL7767-00B	BRACKET ASS'Y		1		
	31	QYSBSF2606Z	SCREW	FOR BRACKET	2		
	32	VKM3860-00A	M.HOLDER B AS'Y		1		
	33	VKL7802-00C	M.HOLDER C AS'Y		1		
	34	QYSDST2604Z	SCREW		3		
	35	VKL7810-00A	LIFTER ASS'Y R		1		
	36	VKL7811-00A	LIFTER ASS'Y L		1		
	37	VKL7812-00A	LIFTER ASS'Y H		1		
	38	VKL2732-002	LIFTER BASE		1		
	39	VKM3857-001	LIFTER BRACKET		1		
	41	WDL266035-2	SLIT WASHER		1		
	43	VKS5514-002MM	LOCK LEVER		3		
	44	VKY3133-002MM	RETURN SPRING		1		
	46	VKY3134-003MM	CLICK SPRING		1		
	47	VKS2252-00E	TRAY ASS'Y		3		
	48	VKS2250-003	TOP BRACKET		1		
	49	VKS5515-002	S.TRAY STOPPER		1		
	50	VKW5156-004	TORSION SPRING		1		
	51	VKS3703-00F	CLAMPER ASS'Y		1		
	62	LV40761-003A	INSULATOR		4		
	65	---------------	CD MECHA		1		
	69	QGB2012J1-10	CONNECTOR		1		
	71	VKW5187-001	ROD		1		
	72	VYSA1R2-033	SPACER		1		
	73	LE30611-001A	C.B HOLDER	FOR CD CB	1		
	74	QYSBSF3008Z	SCREW	FOR HOLDER	2		
	75	QUQ610-1509AJ	FLAT WIRE	TRAVERSE 15	1		
	76	EWS176-008	FLAT WIRE	TRAVERSE 6	1		

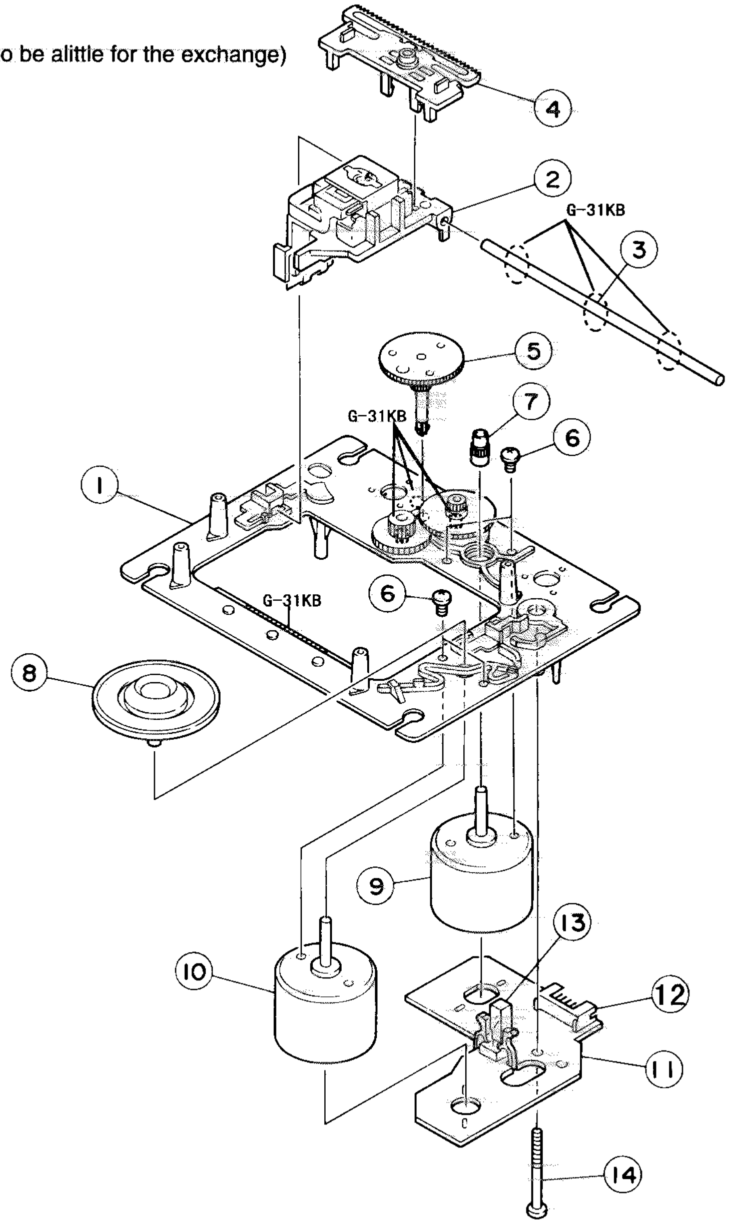
CD Mechanism Ass'y and Parts List

Grease Point

Block No. M 3 M M

No. EXL-M7TB

G-31KB
(Grease to apply have to be alittle for the exchange)

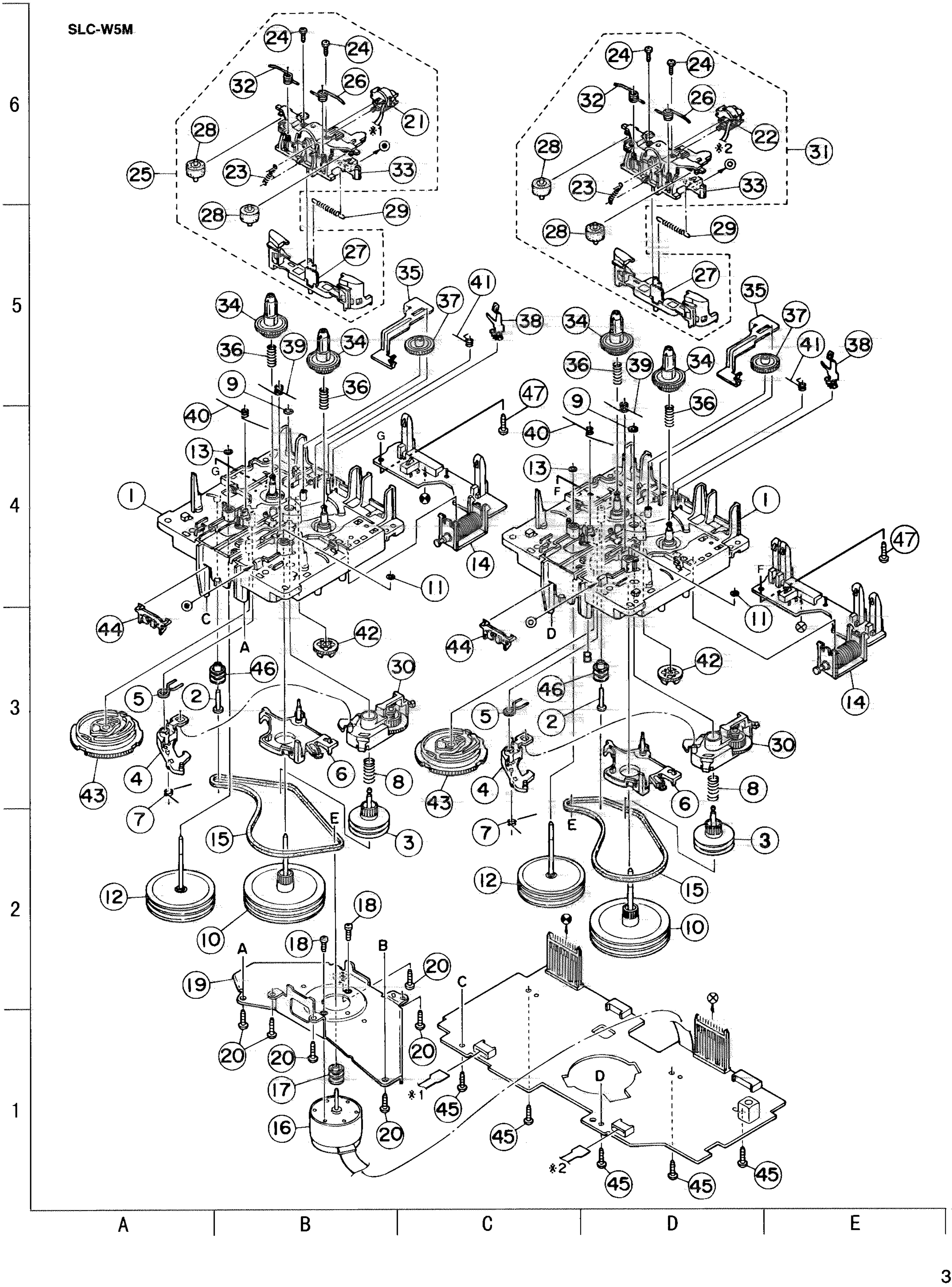


■CD Mechanism Assembly Parts List

⚠	Item	Parts Number	Parts Name	Q'ty	Description	Area
	1	E102731-221SMKP	MECHA. BASE ASSY	1		
	2	OPTIMA-7B	OPTICAL PICK UP	1		
	3	E406777-002SMKP	CD SHAFT	1		
	4	HQN300031-001PK	CD RACK	1		
	5	E307745-441SMKP	MECHA GEAR	1		
	6	QYSDSP2003N	SCREW	4		
	7	E406750-441SM	PINION GEAR	1		
	8	EPB309173PKA	TURN TABLE	1		
	9	E406784-001	FEED MOTOR	1		
	10	E406783-001	SPPINDLE MOTOR	1		
	11	EMW10190-441	P. C. BOARD	1		
	12	QGA2001F1-06	6P PLUG ASSY	1		
	13	QSW0506-001	LEAF SWITCH	1		
	14	E75832-221SS	SCREW	1		

Cassette Mechanism Ass'y and Parts List

Block No. M 4 M M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■ Parts List (Cassette Mechanism)

BLOCK NO. M4MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	1	VKS1165-00H	CHASSIS B.ASS'Y		2		
	2	VKH5786-002	SHAFT		2		
	3	VKS5603-00D	MAIN PULLEY ASY		2		
	4	VKS3785-001MM	FR ARM		2		
	5	VKW5284-002	SWING SPRING		2		
	6	VKS2278-003	TRIGGER ARM		2		
	7	VKW5301-001	FR SPRING		2		
	8	VKW5266-001	ELEVATOR SPRING		2		
	9	WDL214025	WASHER		2		
	10	VKF3205-00B	F.WHEEL ASSY(R)		2		
	11	WDL183425	SLIT WASHER		2		
	12	VKF3207-00B	F.WHEEL ASSY(L)		2		
	13	WDL173525-6	SLIT WASHER		2		
	14	VKZ3174-00A	DC SOLENOID		2		
	15	VKB3000-182	CAPSTAN BELT(B)		2		
	16	MSI-5U2LWA	D.C.MOTOR ASS'Y		1		
	17	VKR4761-001	MOTOR PULLEY		1		
	18	QYSPSP2604Z	SCREW		2		
	19	VKM3907-001	JOINT BRACKET		1		
	20	QYSBSF2608Z	T.SCREW		6		
	21	VGH0424-037	P.B.HEAD		1		
	22	VGH0425-544	R/P&E HEAD		1		
	23	VKW5302-001	HEAD SPRING		2		
	24	VKZ4730-001	SPECIAL SCREW		4		
	25	VKS2279-00C	HEAD MOUNT ASSY		1		
	26	VKW5299-002	PIN ROL.SP.(R)		2		
	27	VKS2277-005	DIRECTION LEVER		2		
	28	VKP4233-00A	PINCH ROL. ASSY		4		
	29	VKW5285-001	RETURN SPRING		2		
	30	VKS3786-00G	CLUTCH ASS'Y		2		
	31	VKS2275-00C	HEAD MOUNT ASSY		1		
	32	VKW5300-002	PIN ROL.SP.(L)		2		
	33	VKS1167-001	HEAD MOUNT BASE		2		
	34	VKS2274-002	REEL GEAR		4		
	35	VKM3906-003	PLAY SW LEVER		2		
	36	VKW5286-002	B.T. SPRING		4		
	37	VKS5559-001	PLAY IDLE GEAR		2		
	38	VKY3149-002	CASSETTE SP.		2		
	39	VKW5279-001	HEAD BASE SP(R)		2		
	40	VKW5280-001	HEAD BASE SP(L)		2		
	41	VKW5296-001	EARTH SPRING		2		
	42	VKS5597-00A	FR GEAR ASS'Y		2		
	43	VKS1166-003	CONTROL CAM		2		
	44	VKS5577-001	FPC HOLDER		2		
	45	QYSBSF2608Z	T.SCREW	FOR P.W.B.	5		
	46	VKR4749-001	IDLE PULLEY		2		
	47	QYSBSF2006Z	SCREW		2		

■ Electrical Parts List(Power AMP Board)

Block No.01

⚠	Item	Parts Number	Description	Area
		I.C.S		
⚠	IC701	STK411-210E		
		DIODES		
⚠	D201	1N5402M-20	DIODE	
⚠	D202	1N5402M-20	DIODE	
⚠	D203	1N5402M-20	DIODE	
⚠	D204	1N5402M-20	DIODE	
⚠	D211	30DF2-FC	DIODE	
⚠	D212	30DF2-FC	DIODE	
⚠	D213	30DF2-FC	DIODE	
⚠	D214	30DF2-FC	DIODE	
⚠	D217	1SR35-100A-T5	SI DIODE	
⚠	D218	1SR35-100A-T5	SI DIODE	
	D219	MTZJ33C-T2	ZENER DIODE	
	D220	MTZJ9.1C-T2	ZENER DIODE	
	D221	MTZJ5.1B-T2	ZENER DIODE	
	D223	1SS133-T2	SI.DIODE	
	D224	1SS133-T2	SI.DIODE	
	D225	1SS133-T2	SI.DIODE	
⚠	D227	1SR35-100A-T5	SI DIODE	
	D244	MTZJ2.4B-T2	ZENER DIODE	
	D245	1SS133-T2	SI.DIODE	
	D360	MTZJ5.1B-T2	ZENER DIODE	
	D361	MTZJ11C-T2	ZENER DIODE	
	D362	MTZJ6.8C-T2	ZENER DIODE	
	D365	MTZJ9.1B-T2	ZENER DIODE	
	D366	MTZJ11C-T2	ZENER DIODE	
	D367	MTZJ10C-T2	ZENER DIODE	
	D368	MTZJ11C-T2	ZENER DIODE	
	D369	MTZJ10C-T2	ZENER DIODE	
	D370	MTZJ11C-T2	ZENER DIODE	
	D703	MTZJ8.2C-T2	ZENER DIODE	
	D704	MTZJ8.2C-T2	ZENER DIODE	
	D719	1SS133-T2	SI.DIODE	
	D720	1SS133-T2	SI.DIODE	
	D721	MTZJ8.2C-T2	ZENER DIODE	
	D722	MTZJ8.2C-T2	ZENER DIODE	
	D723	MTZJ33C-T2	ZENER DIODE	
	D724	MTZJ33C-T2	ZENER DIODE	
	D728	1SS133-T2	SI.DIODE	
		TRANSISTORS		
⚠	Q201	2SB1274/RS/	TRANSISTOR	
	Q203	KRC107M-T	DIGITAL TRANSISTOR	
	Q204	KRC107M-T	DIGITAL TRANSISTOR	
	Q205	KRC107M-T	DIGITAL TRANSISTOR	
	Q240	KTC3199/GL/-T	TRANSISTOR	
	Q242	KTC3199/GL/-T	TRANSISTOR	
⚠	Q360	2SD2061/EF/	SI.TRANSISTOR	
	Q361	KTC3199/GL/-T	TRANSISTOR	
	Q362	KTC3199/GL/-T	TRANSISTOR	
⚠	Q365	2SD2061/EF/	SI.TRANSISTOR	
⚠	Q366	2SD2061/EF/	SI.TRANSISTOR	
	Q367	KTA1267/YG/-T	TRANSISTOR	
	Q368	KTC3199/GL/-T	TRANSISTOR	
⚠	Q369	2SD2061/EF/	SI.TRANSISTOR	
	Q370	KTC3199/GL/-T	TRANSISTOR	
⚠	Q371	2SB1565/EF/	TRANSISTOR	
	Q373	KRA104M-T	DIGITAL TRANSISTOR	
	Q374	KRC104M-T	DIGITAL TRANSISTOR	
	Q375	KRC104M-T	DIGITAL TRANSISTOR	
	Q376	KRA104M-T	DIGITAL TRANSISTOR	
	Q701	2SA1038S/SE/-T	TRANSISTOR	
	Q702	2SA1038S/SE/-T	TRANSISTOR	
	Q726	2SC2389S/SE/-T	SI.TRANSISTOR	
	Q727	2SA1038S/SE/-T	TRANSISTOR	
	Q728	KTC3199/GL/-T	TRANSISTOR	
	Q733	2SC3576-JVC-T	SI.TRANSISTOR	
	Q734	2SC3576-JVC-T	SI.TRANSISTOR	
	Q735	2SC3576-JVC-T	SI.TRANSISTOR	
	Q736	2SC3576-JVC-T	SI.TRANSISTOR	
	Q737	KRA111M-T	DIGITAL TRANSISTOR	
	Q758	2SA1038S/S/-T	TRANSISTOR	
	Q760	2SK301/PQ/-T	F.E.T.	
		CAPACITORS		
	C201	QFV82AJ-104	0.1MF 100V THIN FIL	
	C202	QFV82AJ-104	0.1MF 100V THIN FIL	
	C203	QFV82AJ-104	0.1MF 100V THIN FIL	
⚠	C204	QEZ0461-478	4700MF E CAP.	
⚠	C205	QEZ0461-478	4700MF E CAP.	
	C211	QFVJ1HJ-104Z	0.1MF 50V TF CAP.	
	C212	QFVJ1HJ-104Z	0.1MF 50V TF CAP.	
	C213	QFVJ1HJ-104Z	0.1MF 50V TF CAP.	
⚠	C214	QETM1VM-228J7	2200MF 35V E.CAP.	
⚠	C215	QETM1VM-228J7	2200MF 35V E.CAP.	
	C216	QETN1VM-107Z	100MF 35V E.CAP.	
	C217	QETN1JM-476Z	47MF 63V E.CAP.	
	C218	EETC1HM-226ZJC	22MF 50V E.CAPA.	
	C219	QDYB1CM-103Y	0.01MF 16V C CAP.	
	C220	EETC1HM-226ZJC	22MF 50V E.CAPA.	
	C221	EETB1HM-475E	4.7MF 50V E.CAP.	
	C222	EETB1HM-475E	4.7MF 50V E.CAP.	
	C223	QETC1HM-225ZM	2.2MF 50V E.CAP.	
	C224	EETB1HM-105E	1MF 50V E.CAP.	
	C233	QFLM1HJ-103Z	0.01MF 50V M CAP.	A,C,J
		QFVJ1HJ-224Z	0.22MF 50V CAP.	U,UP,US,UT,UX,UY
	C240	QETC1HM-224Z	0.22MF 50V AL E.CA	
	C360	EETC1EM-226ZE	22MF 25V E.CAP.	
	C361	QCF31HZ-103Z	0.01MF 50V C CAP.	
	C362	EETC1EM-226ZE	22MF 25V E.CAP.	
	C366	EETC1EM-226ZE	22MF 25V E.CAP.	
	C367	QCF31HZ-103Z	0.01MF 50V C CAP.	
	C368	EETC1EM-226ZE	22MF 25V E.CAP.	
	C369	EETC1EM-226ZE	22MF 25V E.CAP.	
	C370	QCF31HZ-103Z	0.01MF 50V C CAP.	
	C371	EETC1EM-226ZE	22MF 25V E.CAP.	
	C372	EETC1EM-226ZE	22MF 25V E.CAP.	
	C373	QCF31HZ-103Z	0.01MF 50V C CAP.	
	C374	EETC1EM-226ZE	22MF 25V E.CAP.	
	C703	QCBB1HK-471Y	470PF 50V CER.CAP.	
	C704	QCBB1HK-471Y	470PF 50V CER.CAP.	
	C705	QCSB1HJ-220	22PF 50V CER.CAP.	
	C706	QCSB1HJ-220	22PF 50V CER.CAP.	
	C707	QETC1EM-476ZM	47MF 25V E.CAP.	
	C708	QETC1EM-476ZM	47MF 25V E.CAP.	
	C709	QCSB1HJ-100Y	10PF 50V CER.CAP.	
	C710	QCSB1HJ-100Y	10PF 50V CER.CAP.	
	C711	QETN1JM-476Z	47MF 63V E.CAP.	
	C712	QETN1JM-476Z	47MF 63V E.CAP.	
	C713	QFVJ1HJ-104Z	0.1MF 50V TF CAP.	A,C,U,UP,US,UT,UX,UY
	C714	QFVJ1HJ-104Z	0.1MF 50V TF CAP.	A,C,U,UP,US,UT,UX,UY
	C715	QFVJ1HJ-104Z	0.1MF 50V TF CAP.	A,C,U,UP,US,UT,UX,UY
	C716	QFVJ1HJ-104Z	0.1MF 50V TF CAP.	A,C,U,UP,US,UT,UX,UY
	C717	QFLM1HJ-473Z	0.047MF 50V M CAP.	J
	C718	QFLM1HJ-473Z	0.047MF 50V M CAP.	J
	C721	QTE1V06-106Z	AL E.CA	
	C722	QTE1V06-106Z	AL E.CA	
	C723	QFVJ1HJ-474Z	0.47MF 50V CAP.	
	C726	EETB1EM-106E	10MF 25V E.CAP.	
	C729	EETB1CM-476	47MF 16V E.CAP.	
	C739	QFLM1HJ-103Z	0.01MF 50V M CAP.	
	C780	QFLM1HJ-823Z	0.082MF 50V M CAP.	
	C799	QDYB1CM-103Y	0.01MF 16V C CAP.	C,J,U,UP,US,UT,UX,UY
		QFLM1HJ-103Z	0.01MF 50V M CAP.	A
		RESISTORS		

■ Electrical Parts List(Power AMP Board)

Block No.01

⚠	Item	Parts Number	Description	Area
⚠	R202	QRJ146J-4R7X	4.7 1/4W UNF.CARB	J
	R203	QRE141J-332Y	3.3K 1/4W C RES.	
	R204	QRE141J-223Y	22K 1/4W C RES.	
	R205	QRE141J-104Y	100K 1/4W C RES.	
	R209	QRE141J-103Y	10K 1/4W CARBON R	
	R210	QRE141J-472Y	4.7K 1/4W C RES.	
	R211	QRE141J-182Y	1.8K 1/4W C RES.	
	R215	QRE141J-473Y	47K 1/4W C RES.	
	R216	QRE141J-473Y	47K 1/4W C RES.	
	R242	QRE141J-222Y	2.2K 1/4W C RES.	
	R245	QRE141J-222Y	2.2K 1/4W C RES.	
	R248	QRE141J-473Y	47K 1/4W C RES.	
	R249	QRE141J-153Y	15K 1/4W C RES.	
	R290	QRE141J-102Y	1K 1/4W C RES.	
	R291	QRE141J-102Y	1K 1/4W C RES.	
	R292	QRE141J-102Y	1K 1/4W C RES.	
	R293	QRE141J-102Y	1K 1/4W C RES.	
	R294	QRE141J-103Y	10K 1/4W CARBON R	
	R295	QRE141J-183Y	18K 1/4W CARBON R	
	R299	QRL012J-332	3.3K 1W UNF.OMF.	
⚠	R360	QRZ9042-2R2X	2.2 F.RES.	A,C,U,UP,US,UT,UX,UY
⚠	R361	QRZ9042-2R2X	2.2 F.RES.	A,C,U,UP,US,UT,UX,UY
	R362	QRE141J-331Y	330 1/4W C RES.	
	R363	QRE141J-331Y	330 1/4W C RES.	
	R364	QRE141J-122Y	1.2K 1/4W C RES.	
	R365	QRE141J-561Y	560 1/4W C RES.	
	R366	QRE141J-561Y	560 1/4W C RES.	
	R367	QRE141J-122Y	1.2K 1/4W C RES.	
	R368	QRE141J-331Y	330 1/4W C RES.	
	R371	QRE141J-4R7Y	4.7 1/4W C RES.	
	R372	QRE141J-4R7Y	4.7 1/4W C RES.	
⚠	R373	QRZ9021-220	22 FUSIBLE	A,C,U,UP,US,UT,UX,UY
⚠	R374	QRL022J-220	22 2W UNF.OMF.	J
⚠		QRZ9021-220	22 FUSIBLE	A,C,U,UP,US,UT,UX,UY
⚠	R375	QRL022J-220	22 2W UNF.OMF.	J
⚠		QRZ9021-220	22 FUSIBLE	A,C,U,UP,US,UT,UX,UY
	R376	QRE141J-221Y	220 1/4W C RES.	
	R377	QRE141J-681Y	680 1/4W CARBON R	
	R378	QRE141J-182Y	1.8K 1/4W C RES.	
⚠	R379	QRL022J-220	22 2W UNF.OMF.	J
⚠	R380	QRL022J-220	22 2W UNF.OMF.	J
	R381	QRE141J-272Y	2.7K 1/4W C RES.	
	R382	QRE141J-562Y	5.6K 1/4W C RES.	
⚠	R383	QRL01DJ-150X	15 1W OMF RES.	C,J
	R384	QRE141J-272Y	2.7K 1/4W C RES.	
	R385	QRE141J-562Y	5.6K 1/4W C RES.	
	R388	QRE141J-103Y	10K 1/4W CARBON R	
	R389	QRE141J-103Y	10K 1/4W CARBON R	
⚠	R390	QRL022J-220	22 2W UNF.OMF.	J
⚠	R391	QRL022J-220	22 2W UNF.OMF.	J
	R701	QRL01DJ-101X	100 1W OMF RES.	
	R702	QRL01DJ-101X	100 1W OMF RES.	
	R703	QRE141J-563Y	56K 1/4W C RES.	
	R704	QRE141J-563Y	56K 1/4W C RES.	
	R705	QRJ146J-681X	680 1/4W UNF C RE	
	R706	QRJ146J-681X	680 1/4W UNF C RE	
	R707	QRE141J-563Y	56K 1/4W C RES.	
	R708	QRE141J-563Y	56K 1/4W C RES.	
	R709	QRT01DJ-R22X	0.22 1W UNF.MF.R	
	R710	QRT01DJ-R22X	0.22 1W UNF.MF.R	
	R711	QRT01DJ-R22X	0.22 1W UNF.MF.R	
	R712	QRT01DJ-R22X	0.22 1W UNF.MF.R	
	R713	QRJ146J-100X	10 1/4W UNF.CARB	
	R714	QRJ146J-100X	10 1/4W UNF.CARB	
	R715	QRJ146J-100X	10 1/4W UNF.CARB	
	R716	QRJ146J-100X	10 1/4W UNF.CARB	
	R717	QRE141J-122Y	1.2K 1/4W C RES.	

⚠	Item	Parts Number	Description	Area
	R718	QRE141J-122Y	1.2K 1/4W C RES.	
	R719	QRE141J-223Y	22K 1/4W C RES.	
	R720	QRE141J-223Y	22K 1/4W C RES.	
	R721	QRE141J-103Y	10K 1/4W CARBON R	
	R722	QRE141J-103Y	10K 1/4W CARBON R	
	R723	QRE141J-392Y	3.9K 1/4W C RES.	
	R724	QRE141J-392Y	3.9K 1/4W C RES.	
	R725	QRE141J-823Y	82K 1/4W C RES.	
	R726	QRE141J-104Y	100K 1/4W C RES.	
	R727	QRE141J-104Y	100K 1/4W C RES.	
	R728	QRE141J-103Y	10K 1/4W CARBON R	
	R729	QRE141J-104Y	100K 1/4W C RES.	
	R730	QRE141J-103Y	10K 1/4W CARBON R	
	R733	QRE141J-472Y	4.7K 1/4W C RES.	
	R734	QRE141J-472Y	4.7K 1/4W C RES.	
	R735	QRE141J-472Y	4.7K 1/4W C RES.	
	R736	QRE141J-472Y	4.7K 1/4W C RES.	
	R739	QRL01DJ-821X	820 1W OMF RES.	
	R740	QRL01DJ-821X	820 1W OMF RES.	
	R766	QRE141J-333Y	33K 1/4W C RES.	
	R767	QRE141J-683Y	68K 1/4W C RES.	
	R771	QRE141J-222Y	2.2K 1/4W C RES.	
	R772	QRE141J-103Y	10K 1/4W CARBON R	
	R774	QRJ146J-100X	10 1/4W UNF.CARB	
	R775	QRE141J-102Y	1K 1/4W C RES.	
	R776	QRE141J-102Y	1K 1/4W C RES.	
	R780	QRE141J-105Y	1M 1/4W C RES.	
	R781	QRE141J-392Y	3.9K 1/4W C RES.	
	R782	QRE141J-475Y	4.7M 1/4W C RES.	
	R1001	QRZ9044-335	3.3M COMPOSIT	C,J
		OTHERS		
	L201	QQR0779-001Z	INDUCTOR	A,C
	L701	QQLZ005-R45	INDUCTOR	
	L702	QQLZ005-R45	INDUCTOR	
	S500	QSW0812-001	VOLTAGE SWITCH	U,US,UT,UX,UY
	CN102	QGB2510J1-10	CONNECT TERMINAL	
	CN103	QGB2501J1-11	CONNECT TERMINAL	
	CN105	QGB2510J1-06	CONNECTOR	
	CN106	QGB2501K2-10	CONNECT TERMINAL	
	CN107	QGB2501K2-07	CONNECT TERMINAL	
	CN109	QGA3901C1-05	5P CONNECTOR	
	CN111	QGD2501C1-04Z	SOCKET ASSY	
	CN112	QGB2510K2-10	CONNECTOR	
	CN113	QGB2501K2-11	CONNECT TERMINAL	
	CN119	EWS285-202V	CONNECTOR WIRE	
	CN915	QGD2501C1-04Z	SOCKET ASSY	
	EP201	E409182-001SM	EARTH TERMINAL	
	FT111	QNG0020-001Z	FUSE CLIP	
	FT112	QNG0020-001Z	FUSE CLIP	
	FT131	QNG0020-001Z	FUSE CLIP	U,US,UT,UX,UY
	FT132	QNG0020-001Z	FUSE CLIP	U,US,UT,UX,UY
	FT511	QNG0020-001Z	FUSE CLIP	
	FT512	QNG0020-001Z	FUSE CLIP	
	FT521	QNG0020-001Z	FUSE CLIP	
	FT522	QNG0020-001Z	FUSE CLIP	
	FW101	QUM134-12DGZ4	FLAT WIRE	
	FW703	QUM134-14DGZ4	FLAT WIRE	
	TB101	QNZ0079-001Z	TAB I.M	
	TB102	QNZ0079-001Z	TAB I.M	
	TH202	QAD0095-4R7Z	POSITIVE THERMISTOR	A,C,U,UP,US,UT,UX,UY

■ Electrical Parts List(Function,Tuner,Main Board)

⚠	Item	Parts Number	Description	Area
		I.C.S		
	IC 1	LA1838	I.C(M)	
	IC 2	LC72136N	I.C(M)	
	IC401	TDA7439	I.C(M)	
	IC402	BA15218	I.C(MONO-ANALOG)	
	IC403	BA15218	I.C(MONO-ANALOG)	U,UP,US,UT,UX,UY
	IC404	BU4052BC	I.C(M)	U,UP,US,UT,UX,UY
	IC405	BA15218	I.C(MONO-ANALOG)	
	IC406	LA2650	I.C(MONO-ANALOG)	
	IC542	BA3835S	I.C(M)	
		DIODES		
	D 1	1SS133-T2	SI.DIODE	
	D 2	1SS133-T2	SI.DIODE	
	D 3	1SS133-T2	SI.DIODE	
	D 4	1SS133-T2	SI.DIODE	
	D 5	MTZJ5.1B-T2	ZENER DIODE	
	D 8	1SS133-T2	SI.DIODE	
	D303	1SS133-T2	SI.DIODE	
	D304	1SR35-100A-T5	SI DIODE	A,J
	D305	1SS133-T2	SI.DIODE	
	D306	1SS133-T2	SI.DIODE	
	D307	1SS133-T2	SI.DIODE	
	D403	1SR35-100A-T5	SI DIODE	
	D481	1SS133-T2	SI.DIODE	
	D482	1SS133-T2	SI.DIODE	
	D483	1SS133-T2	SI.DIODE	
	D484	1SS133-T2	SI.DIODE	
	D485	1SS133-T2	SI.DIODE	
	D501	MTZJ5.1B-T2	ZENER DIODE	
		TRANSISTORS		
	Q 1	2SC1923/O/-T	TR TAPE	
	Q 6	KRA107M-T	DIGITAL TRANSISTOR	
	Q401	2SC3576-JVC-T	SI.TRANSISTOR	
	Q402	2SC3576-JVC-T	SI.TRANSISTOR	
	Q403	KRA102M-T	DIGITAL TRANSISTOR	
	Q405	2SC3576-JVC-T	SI.TRANSISTOR	
	Q406	2SC3576-JVC-T	SI.TRANSISTOR	
	Q407	2SA1175/HFE/-T	TRANSISTOR	
	Q408	KTC3199/GL/-T	TRANSISTOR	
	Q409	KRC114M-T	SI.TRANSISTOR	
	Q410	KTC3199/GL/-T	TRANSISTOR	
	Q411	KTC3199/GL/-T	TRANSISTOR	
	Q412	KRC102M-T	DIGITAL TRANSISTOR	U,UP,US,UT,UX,UY
	Q481	2SC3576-JVC-T	SI.TRANSISTOR	
	Q482	2SC3576-JVC-T	SI.TRANSISTOR	
	Q483	KRA102M-T	DIGITAL TRANSISTOR	
		CAPACITORS		
	C 1	QCBB1HK-223Y	0.022MF 50V C CAP.	
	C 3	QCBB1HK-473Y	0.047MF 50V C CAP.	
	C 4	QDYB1CM-103Y	0.01MF 16V C CAP.	
	C 5	EETB1CM-476	47MF 16V E.CAP.	C,J,U,UP,US,UT,UX,UY
		QETN1AM-107Z	100MF 10V AL E.CA	A,B,E,EN,EV
	C 10	QETB1HM-474N	0.47MF 50V E.CAP.	
	C 12	QCSB1HJ-100Y	10PF 50V CER.CAP.	
	C 13	QFLM1HJ-473Z	0.047MF 50V M CAP.	
	C 14	QCBB1HK-473Y	0.047MF 50V C CAP.	
	C 18	QCBB1HK-471Y	470PF 50V CER.CAP.	C,J,U,UP,US,UT,UX,UY
		QDXB1CM-152Y	1500PF 16V C CAP.	A
	C 19	QCBB1HK-471Y	470PF 50V CER.CAP.	C,J,U,UP,US,UT,UX,UY
		QDXB1CM-152Y	1500PF 16V C CAP.	A
	C 20	EETC1HM-226ZJC	22MF 50V E.CAPA.	
	C 21	QCBB1HK-473Y	0.047MF 50V C CAP.	
	C 22	QFVJ1HJ-274Z	0.27MF 50V CAP.	
	C 23	EETB1HM-105E	1MF 50V E.CAP.	
	C 24	EETC1HM-226ZJC	22MF 50V E.CAPA.	
	C 25	QFLM1HJ-273Z	0.027MF 50V M CAP.	
	C 26	EETB1EM-106E	10MF 25V E.CAP.	
	C 27	EETB1HM-105E	1MF 50V E.CAP.	
	C 28	EETB1HM-105E	1MF 50V E.CAP.	
	C 29	QFLM1HJ-182Z	1800PF 50V M CAP.	A
		QFLM1HJ-222Z	2200PF 50V M CAP.	C,J
	C 30	QFLM1HJ-182Z	1800PF 50V M CAP.	A
		QFLM1HJ-222Z	2200PF 50V M CAP.	C,J
	C 31	QCSB1HJ-560Y	56PF 50V CER.CAP.	
	C 32	QCGB1HK-102	1000PF 50V CER.CAP.	
	C 33	QCBB1HK-473Y	0.047MF 50V C CAP.	
	C 34	QETB1HM-474N	0.47MF 50V E.CAP.	
	C 35	QDYB1CM-103Y	0.01MF 16V C CAP.	
	C 36	EETB1HM-105E	1MF 50V E.CAP.	
	C 37	QETB1HM-474N	0.47MF 50V E.CAP.	
	C 38	EETB1HM-105E	1MF 50V E.CAP.	
	C 39	QCBB1HK-223Y	0.022MF 50V C CAP.	
	C 40	QETC1EM-107Z	100MF 25V AL E.CA	
	C 41	QCBB1HK-473Y	0.047MF 50V C CAP.	
	C 42	QCBB1HK-473Y	0.047MF 50V C CAP.	
	C 43	QCBB1HK-473Y	0.047MF 50V C CAP.	
	C 44	QCGB1HK-102	1000PF 50V CER.CAP.	
	C 51	EETB1HM-105E	1MF 50V E.CAP.	
	C 52	EETB1HM-105E	1MF 50V E.CAP.	
	C 60	QEKC1AM-107Z	100MF 10V E CAP.	
	C 61	QCSB1HJ-120Y	12PF 50V CER.CAP.	
	C 62	QCSB1HJ-120Y	12PF 50V CER.CAP.	
	C 63	QCBB1HK-473Y	0.047MF 50V C CAP.	
	C 65	QCGB1HK-102	1000PF 50V CER.CAP.	
	C 66	QCBB1HK-151	150PF 50V CER.CAP.	
	C 67	QCSB1HJ-270Y	27PF 50V CER.CAP.	
	C 68	QCBB1HK-101Y	100PF 50V CER.CAP.	
	C 69	QFVJ1HJ-105Z	1MF 50V TF.CAPA.	
	C 70	QDXB1CM-392Y	3900PF 16V C CAP.	
	C 71	EETB1CM-476	47MF 16V E.CAP.	
	C 72	QCGB1HK-102	1000PF 50V CER.CAP.	
	C360	QFVJ1HJ-104Z	0.1MF 50V TF CAP.	
	C361	QFVJ1HJ-104Z	0.1MF 50V TF CAP.	
	C365	QETN1CM-227ZS	220MF 16V E.CAP.	
	C366	QETN1AM-108Z	1000MF 10V AL E.CA	
	C372	EETB1HM-475E	4.7MF 50V E.CAP.	
	C373	QDYB1CM-103Y	0.01MF 16V C CAP.	
	C380	QETC1HM-224Z	0.22MF 50V AL E.CA	
	C381	QCFB1HZ-104Y	0.1MF 50V CER.CAP.	
	C382	QCFB1HZ-104Y	0.1MF 50V CER.CAP.	
	C383	QETC1EM-476ZM	47MF 25V E.CAP.	
	C385	EETB1HM-105E	1MF 50V E.CAP.	
	C386	QDGB1HK-681Y	680PF 50V C CAP.	
	C387	QFLM1HJ-153Z	0.015MF 50V M CAP.	
	C388	QDXB1CM-182Y	1800PF 16V C CAP.	
	C389	QCSB1HJ-330Y	33PF 50V CER.CAP.	
	C390	QETC1HM-224Z	0.22MF 50V AL E.CA	
	C398	QFLM1HJ-103Z	0.01MF 50V M CAP.	
	C399	QFLM1HJ-103Z	0.01MF 50V M CAP.	
	C401	QFLM1HJ-222Z	2200PF 50V M CAP.	
	C402	QFLM1HJ-222Z	2200PF 50V M CAP.	
	C403	QFLM1HJ-102Z	1000PF 50V M CAP.	
	C404	QFLM1HJ-102Z	1000PF 50V M CAP.	
	C407	QTE1V06-106Z	AL E.CA	
	C408	QTE1V06-106Z	AL E.CA	
	C411	EETB1EM-106E	10MF 25V E.CAP.	
	C412	EETB1EM-106E	10MF 25V E.CAP.	
	C413	QCBB1HK-221Y	220PF 50V CER.CAP.	
	C414	QCBB1HK-221Y	220PF 50V CER.CAP.	
	C415	EETB1EM-106E	10MF 25V E.CAP.	
	C416	EETB1EM-106E	10MF 25V E.CAP.	
	C417	QEKC1HM-225Z	2.2MF 50V E.CAP.	
	C418	QEKC1HM-225Z	2.2MF 50V E.CAP.	
	C419	EETB1EM-106E	10MF 25V E.CAP.	

■ Electrical Parts List(Function,Tuner,Main Board)

Block No.02

⚠	Item	Parts Number	Description	Area
	C420	QETN1AM-107Z	100MF 10V AL E.CA	
	C421	QFVJ1HJ-104Z	0.1MF 50V TF CAP.	
	C422	QFVJ1HJ-104Z	0.1MF 50V TF CAP.	
	C423	QFVJ1HJ-104Z	0.1MF 50V TF CAP.	
	C424	QFVJ1HJ-104Z	0.1MF 50V TF CAP.	
	C425	QFLM1HJ-183Z	0.018MF 50V M CAP.	
	C426	QFLM1HJ-183Z	0.018MF 50V M CAP.	
	C427	QFLM1HJ-223Z	0.022MF 50V M CAP.	
	C428	QFLM1HJ-223Z	0.022MF 50V M CAP.	
	C429	QFLM1HJ-562Z	5600PF 50V M CAP.	
	C430	QFLM1HJ-562Z	5600PF 50V M CAP.	
	C431	QETC1HM-225ZM	2.2MF 50V E.CAP.	
	C432	QETC1HM-225ZM	2.2MF 50V E.CAP.	
	C433	QTE1H39-225Z	2.2MF 50V E.CAP.	
	C434	QTE1H39-225Z	2.2MF 50V E.CAP.	
	C435	QETN1EM-106Z	10MF 25V E.CAP.	
	C436	QETN1EM-106Z	10MF 25V E.CAP.	
	C439	QETC1HM-224Z	0.22MF 50V AL E.CA	U,UP,US,UT,UX,UY
	C440	EETB1EM-106E	10MF 25V E.CAP.	U,UP,US,UT,UX,UY
	C445	QCBB1HK-101Y	100PF 50V CER.CAP.	
	C446	QCBB1HK-101Y	100PF 50V CER.CAP.	
	C447	QTE1C39-106Z	10MF 16V E.CAP.	
	C448	QTE1C39-106Z	10MF 16V E.CAP.	
	C454	QCBB1HK-101Y	100PF 50V CER.CAP.	U,UP,US,UT,UX,UY
	C457	QTE1V06-106Z	10MF 35V E.CAP.	
	C458	QTE1V06-106Z	10MF 35V E.CAP.	
	C459	QFLM1HJ-333Z	0.033MF 50V M CAP.	
	C460	EETB1HM-475E	4.7MF 50V E.CAP.	
	C461	QETB1HM-474N	0.47MF 50V E.CAP.	
	C462	QFLM1HJ-393Z	0.039MF 50V M CAP.	
	C463	EETB1HM-475E	4.7MF 50V E.CAP.	
	C464	QETN1AM-107Z	100MF 10V AL E.CA	
	C465	QFLM1HJ-473Z	0.047MF 50V M CAP.	
	C466	QFLM1HJ-473Z	0.047MF 50V M CAP.	
	C467	EETB1HM-105E	1MF 50V E.CAP.	
	C468	QETC1EM-476ZM	47MF 25V E.CAP.	
	C477	EETB1HM-475E	4.7MF 50V E.CAP.	
	C481	QCBB1HK-221Y	220PF 50V CER.CAP.	
	C482	QCBB1HK-221Y	220PF 50V CER.CAP.	
	C483	QDXB1CM-222Y	2200PF 16V C CAP.	
	C484	QCBB1HK-101Y	100PF 50V CER.CAP.	A,C,J
		QCGB1HK-102	1000PF 50V CER.CAP.	U,UP,US,UT,UX,UY
	C489	EETB1CM-476	47MF 16V E.CAP.	
	C490	EETB1CM-476	47MF 16V E.CAP.	
	C493	QFVJ1HJ-104Z	0.1MF 50V TF CAP.	
	C494	QFVJ1HJ-104Z	0.1MF 50V TF CAP.	
	C495	QFVJ1HJ-104Z	0.1MF 50V TF CAP.	
	C496	QFVJ1HJ-104Z	0.1MF 50V TF CAP.	
	C580	QDX31EM-473Z	0.047MF 25V C CAP.	
	C585	QCGB1HK-102	1000PF 50V CER.CAP.	U,UP,US,UT,UX,UY
	C587	EETB1EM-106E	10MF 25V E.CAP.	
	C589	QDYB1CM-103Y	0.01MF 16V C CAP.	
		RESISTORS		
	R 1	QRE141J-102Y	1K 1/4W C RES.	
	R 10	QRE141J-102Y	1K 1/4W C RES.	
	R 12	QRE141J-102Y	1K 1/4W C RES.	
	R 13	QRE141J-104Y	100K 1/4W C RES.	
	R 14	QRE141J-560Y	56 1/4W C RES.	
	R 19	QRE141J-393Y	39K 1/4W C RES.	A
		QRE141J-623Y	62K 1/4W C RES.	C,J,U,UP,US,UT,UX,UY
	R 20	QRE141J-331Y	330 1/4W C RES.	
	R 21	QRE141J-224Y	220K 1/4W C RES.	
	R 22	QRE141J-331Y	330 1/4W C RES.	
	R 24	QRE141J-433Y	43K 1/4W C RES.	
	R 25	QRE141J-272Y	2.7K 1/4W C RES.	
	R 26	QRE141J-103Y	10K 1/4W CARBON R	
	R 27	QRE141J-393Y	39K 1/4W C RES.	A

⚠	Item	Parts Number	Description	Area
	R 27	QRE141J-623Y	62K 1/4W C RES.	C,J,U,UP,US,UT,UX,UY
	R 28	QRE141J-223Y	22K 1/4W C RES.	
	R 29	QRE141J-302Y	3K 1/4W C RES.	
	R 30	QRE141J-392Y	3.9K 1/4W C RES.	
	R 31	QRE141J-200Y	20 1/4W C RES IT	
	R 32	QRE141J-331Y	330 1/4W C RES.	
	R 33	QRE141J-103Y	10K 1/4W CARBON R	
	R 34	QRE141J-222Y	2.2K 1/4W C RES.	
	R 35	QRE141J-222Y	2.2K 1/4W C RES.	
	R 36	QRE141J-103Y	10K 1/4W CARBON R	
	R 37	QRE141J-102Y	1K 1/4W C RES.	
	R 43	QRE141J-102Y	1K 1/4W C RES.	
	R 44	QRE141J-102Y	1K 1/4W C RES.	
	R 45	QRE141J-102Y	1K 1/4W C RES.	
	R 46	QRE141J-563Y	56K 1/4W C RES.	
	R 47	QRE141J-103Y	10K 1/4W CARBON R	
	R 48	QRE141J-331Y	330 1/4W C RES.	
	R 49	QRE141J-102Y	1K 1/4W C RES.	
	R 52	QRE141J-472Y	4.7K 1/4W C RES.	
	R 54	QRE141J-472Y	4.7K 1/4W C RES.	
	R 55	QRE141J-182Y	1.8K 1/4W C RES.	
	R 56	QRE141J-332Y	3.3K 1/4W C RES.	
	R 57	QRE141J-102Y	1K 1/4W C RES.	
	R 64	QRE141J-473Y	47K 1/4W C RES.	
	R 65	QRE141J-222Y	2.2K 1/4W C RES.	
	R 66	QRE141J-222Y	2.2K 1/4W C RES.	
	R 69	QRE141J-222Y	2.2K 1/4W C RES.	
	R360	QRE141J-222Y	2.2K 1/4W C RES.	
	R363	QRE141J-391Y	390 1/4W C RES.	
	R370	QRE141J-102Y	1K 1/4W C RES.	
	R371	QRE141J-103Y	10K 1/4W CARBON R	
	R375	QRE141J-331Y	330 1/4W C RES.	
	R376	QRE141J-473Y	47K 1/4W C RES.	
	R377	QRE141J-223Y	22K 1/4W C RES.	
	R378	QRE141J-104Y	100K 1/4W C RES.	
	R383	QRE141J-472Y	4.7K 1/4W C RES.	
	R384	QRE141J-472Y	4.7K 1/4W C RES.	
	R386	QRE141J-104Y	100K 1/4W C RES.	
	R387	QRE141J-473Y	47K 1/4W C RES.	
	R388	QRE141J-220Y	22 1/4W C RES.	
	F389	QRE141J-225Y	2.2M 1/4W C RES.	
	R401	QRE141J-222Y	2.2K 1/4W C RES.	
	R402	QRE141J-222Y	2.2K 1/4W C RES.	
	R403	QRE141J-222Y	2.2K 1/4W C RES.	
	R404	QRE141J-222Y	2.2K 1/4W C RES.	
	R405	QRE141J-432Y	4.3K 1/4W C RES.	
	R406	QRE141J-432Y	4.3K 1/4W C RES.	
	R407	QRE141J-302Y	3K 1/4W C RES.	
	R408	QRE141J-302Y	3K 1/4W C RES.	
	R413	QRE141J-303Y	30K 1/4W C RES.	
	R414	QRE141J-303Y	30K 1/4W C RES.	
	R415	QRE141J-303Y	30K 1/4W C RES.	
	R416	QRE141J-303Y	30K 1/4W C RES.	
	R417	QRE141J-562Y	5.6K 1/4W C RES.	
	R418	QRE141J-562Y	5.6K 1/4W C RES.	
	R419	QRE141J-272Y	2.7K 1/4W C RES.	
	R420	QRE141J-272Y	2.7K 1/4W C RES.	
	R421	QRE141J-104Y	100K 1/4W C RES.	
	R422	QRE141J-104Y	100K 1/4W C RES.	
	R423	QRE141J-303Y	30K 1/4W C RES.	U,UP,US,UT,UX,UY
	R424	QRE141J-153Y	15K 1/4W C RES.	U,UP,US,UT,UX,UY
	R425	QRE141J-153Y	15K 1/4W C RES.	U,UP,US,UT,UX,UY
	R426	QRE141J-303Y	30K 1/4W C RES.	U,UP,US,UT,UX,UY
	R427	QRE141J-153Y	15K 1/4W C RES.	U,UP,US,UT,UX,UY
	R428	QRE141J-104Y	100K 1/4W C RES.	U,UP,US,UT,UX,UY
	R430	QRE141J-473Y	47K 1/4W C RES.	U,UP,US,UT,UX,UY
	R433	QRE141J-562Y	5.6K 1/4W C RES.	

■ Electrical Parts List(Function,Tuner,Main Board)

⚠	Item	Parts Number	Description	Area
	R434	QRE141J-562Y	5.6K 1/4W C RES.	
	R435	QRE141J-104Y	100K 1/4W C RES.	
	R436	QRE141J-104Y	100K 1/4W C RES.	
	R437	QRE141J-472Y	4.7K 1/4W C RES.	A,C,J
		QRE141J-682Y	6.8K 1/4W C RES.	U,UP,US,UT,UX,UY
	R438	QRE141J-472Y	4.7K 1/4W C RES.	A,C,J
		QRE141J-682Y	6.8K 1/4W C RES.	U,UP,US,UT,UX,UY
	R439	QRE141J-472Y	4.7K 1/4W C RES.	
	R440	QRE141J-472Y	4.7K 1/4W C RES.	
	R441	QRE141J-104Y	100K 1/4W C RES.	
	R442	QRE141J-104Y	100K 1/4W C RES.	
	R443	QRE141J-203Y	20K 1/4W C RES.	U,UP,US,UT,UX,UY
	R444	QRE141J-203Y	20K 1/4W C RES.	U,UP,US,UT,UX,UY
	R445	QRE141J-303Y	30K 1/4W C RES.	
	R446	QRE141J-303Y	30K 1/4W C RES.	
	R447	QRE141J-912Y	9.1K 1/4W C RES.	U,UP,US,UT,UX,UY
	R450	QRE141J-224Y	220K 1/4W C RES.	
	R459	QRE141J-472Y	4.7K 1/4W C RES.	
	R460	QRE141J-472Y	4.7K 1/4W C RES.	
	R461	QRE141J-222Y	2.2K 1/4W C RES.	
	R462	QRE141J-222Y	2.2K 1/4W C RES.	
	R463	QRE141J-103Y	10K 1/4W CARBON R	
	R464	QRE141J-103Y	10K 1/4W CARBON R	
	R465	QRE141J-102Y	1K 1/4W C RES.	
	R469	QRE141J-221Y	220 1/4W C RES.	
	R470	QRE141J-221Y	220 1/4W C RES.	
	R471	QRE141J-103Y	10K 1/4W CARBON R	
	R472	QRE141J-103Y	10K 1/4W CARBON R	
	R473	QRE141J-103Y	10K 1/4W CARBON R	
	R481	QRE141J-222Y	2.2K 1/4W C RES.	
	R482	QRE141J-222Y	2.2K 1/4W C RES.	
	R483	QRE141J-221Y	220 1/4W C RES.	
	R484	QRE141J-221Y	220 1/4W C RES.	
	R485	QRE141J-103Y	10K 1/4W CARBON R	
	R486	QRE141J-103Y	10K 1/4W CARBON R	
	R493	QRE141J-203Y	20K 1/4W C RES.	
	R494	QRE141J-203Y	20K 1/4W C RES.	
	R497	QRE141J-104Y	100K 1/4W C RES.	
	R498	QRE141J-104Y	100K 1/4W C RES.	
	R546	QRE141J-473Y	47K 1/4W C RES.	
	R547	QRE141J-473Y	47K 1/4W C RES.	
	R548	QRE141J-563Y	56K 1/4W C RES.	
	R549	QRE141J-563Y	56K 1/4W C RES.	
	R555	QRE141J-102Y	1K 1/4W C RES.	
	R556	QRE141J-102Y	1K 1/4W C RES.	
	R573	QRE141J-103Y	10K 1/4W CARBON R	
	R576	QRE141J-102Y	1K 1/4W C RES.	
	R578	QRE141J-103Y	10K 1/4W CARBON R	
	R579	QRE141J-102Y	1K 1/4W C RES.	
	R580	QRE141J-103Y	10K 1/4W CARBON R	
	R581	QRE141J-102Y	1K 1/4W C RES.	
	R582	QRE141J-102Y	1K 1/4W C RES.	
	R583	QRE141J-102Y	1K 1/4W C RES.	
	R584	QRE141J-102Y	1K 1/4W C RES.	
	R585	QRE141J-102Y	1K 1/4W C RES.	
	R586	QRE141J-103Y	10K 1/4W CARBON R	
	R587	QRE141J-102Y	1K 1/4W C RES.	
	R588	QRE141J-103Y	10K 1/4W CARBON R	
	R589	QRE141J-102Y	1K 1/4W C RES.	
	R592	QRE141J-102Y	1K 1/4W C RES.	
	R593	QRE141J-272Y	2.7K 1/4W C RES.	
	R594	QRE141J-181Y	180 1/4W C RES.	
	R595	QRE141J-181Y	180 1/4W C RES.	
	R597	QRE141J-222Y	2.2K 1/4W C RES.	
	R599	QRE141J-222Y	2.2K 1/4W C RES.	
		OTHERS		
	J 1	QNB0008-001	ANT TERMINAL	C,J,U,UP,US,UT,UX,UY

⚠	Item	Parts Number	Description	Area
	J 1	QNB0014-001	ANT TERMINAL	A
	J401	QNN0132-001	PIN JACK	
	J499	GP1F32T	OPTICAL JACK	
	L 1	QQR0796-001	COIL BLOCK	
	L 4	QQL231K-221Y	INDUCTOR	
	L403	QQR0779-001Z	INDUCTOR	
	L406	QQR0779-001Z	INDUCTOR	
	T 1	QQR0793-001	IFT	
	X 1	QAX0402-001	CRYSTAL	
	CF 1	QAX0419-001Z	C FILTER	C,J,U,UP,US,UT,UX,UY
		QAX0420-001	C FILTER	A
	CF 2	QAX0419-001Z	C FILTER	C,J,U,UP,US,UT,UX,UY
		QAX0421-001	C FILTER	A
	CF 3	QAX0519-001Z	CERAMIC FILTER	
	CN410	QGF1016F1-19	CONNECTOR	
	CN411	QGF1201C3-21	CONNECT TERMINAL	
	CN412	QGF1201C3-21	CONNECT TERMINAL	
	CN413	QGF1201C3-17	CONNECT TERMINAL	
	CN415	QGD2501C1-04Z	SOCKET ASSY	
	CN416	QGB2501J1-10	CONNECT TERMINAL	
	CN417	QGB2501J1-07	CONNECT TERMINAL	
	EP001	E409182-001SM	EARTH TERMINAL	
	TH401	QAD0064-2R2Z	POSISTOR I.M	C,U,UP,US,UT,UX,UY
	TU 1	QAU0034-001	FM FRONT END	A
		QAU0097-001	FRONT END	C,J,U,UP,US,UT,UX,UY

■ Electrical Parts List(System Control & Swith Board)

Block No.03

⚠	Item	Parts Number	Description	Area
		I.C.S		
	IC810	MN101C23DBP3	I.C(M)	
	IC811	NJU3714D	I.C(M)	
	IC812	GP1U291Q	I.C(M)	
	IC853	TA8409S	I.C(MONO-ANALOG)	
	IC854	NJU3711D	IC	
	IC901	NJM4580L	I.C(MONO-ANALOG)	U,UP,US,UT,UX,UY
	IC902	BU9253AS	I.C(M)	U,UP,US,UT,UX,UY
		DIODES		
	D801	1SR35-100A-T5	SI DIODE	
	D803	1SS119-02-T2	SI DIODE	
	D804	1SS133-T2	SI DIODE	
	D805	1SS133-T2	SI DIODE	
	D831	MTZJ5.1B-T2	ZENER DIODE	
	D832	MTZJ5.1B-T2	ZENER DIODE	
	D920	SLR-342DC-T	L.E.D.	
	D955	SLR-342MC-T	LED I.M	
	D956	SLR-342MC-T	LED I.M	
	D957	SLR-342MC-T	LED I.M	
	D958	SLR-342MC-T	LED I.M	
	D961	1SS133-T2	SI DIODE	
	D962	SLR-342VC-T	L.E.D.	
	D981	SLR-342MC-T	LED I.M	
	D982	SLR-342MC-T	LED I.M	
	D983	SLR-342MC-T	LED I.M	
	D984	SLR-342MC-T	LED I.M	
	D991	SLR-342MC-T	LED I.M	
	D992	SLR-342MC-T	LED I.M	
	D993	SLR-342MC-T	LED I.M	
	D1021	MTZJ5.1B-T2	ZENER DIODE	U,UP,US,UT,UX,UY
	D1041	1SS133-T2	SI.DIODE	
		TRANSISTORS		
	Q801	2SC2668/O/-T	TRANSISTOR	
	Q802	2SC2668/O/-T	TRANSISTOR	
	Q803	DTC114ES	DIGITAL TRANSISTOR	
	Q804	DTC114ES	DIGITAL TRANSISTOR	
	Q805	DTC114ES	DIGITAL TRANSISTOR	
	Q806	DTC114ES	DIGITAL TRANSISTOR	
	Q807	DTC114ES	DIGITAL TRANSISTOR	
	Q808	DTC114ES	DIGITAL TRANSISTOR	
	Q809	DTC114ES	DIGITAL TRANSISTOR	
	Q810	DTC114ES	DIGITAL TRANSISTOR	
	Q811	DTC114ES	DIGITAL TRANSISTOR	
	Q851	KTC3199/GL/-T	TR I/M	
	Q961	KRA102M-T	DIGITAL TRANSISTOR	
	Q1021	DTA114TS	DIGITAL TRANSISTOR	U,UP,US,UT,UX,UY
		CAPACITORS		
	C801	QFVJ1HJ-124Z	0.12MF 50V TF CAP.	
	C803	QETC0JM-477ZM	470MF 6.3V E.CAP.	
	C804	QETN0JM-108Z	1000MF 6.3V AL E.CA	
	C805	QCGB1HK-102	1000PF 50V CER.CAP	
	C806	QCGB1HK-102	1000PF 50V CER.CAP	
	C807	QCSB1HJ-390Y	39PF 50V CER.CAP.	
	C808	QCSB1HJ-330Y	33PF 50V CER.CAP.	
	C809	QCSB1HJ-330Y	33PF 50V CER.CAP.	
	C810	QCSB1HJ-390Y	39PF 50V CER.CAP.	
	C811	QCGB1HK-102	1000PF 50V CER.CAP	
	C812	QCSB1HJ-220	22PF 50V CER.CAP.	
	C813	QCSB1HJ-270Y	27PF 50V CER.CAP.	
	C814	QCGB1HK-102	1000PF 50V CER.CAP	
	C815	EETC1HM-226ZJC	22MF 50V E.CAPA.	
	C816	EETB1CM-476	47MF 16V E.CAP.	
	C817	EETC1HM-226ZJC	22MF 50V E.CAPA.	
	C818	QCBB1HK-221Y	220PF 50V CER.CAP.	
	C819	QCBB1HK-221Y	220PF 50V CER.CAP.	
	C820	QCZ0205-155	1.5MF 25V C.CAP.	
	C821	QDYB1CM-103Y	0.01MF 16V C CAP.	

⚠	Item	Parts Number	Description	Area
	C831	QDYB1CM-103Y	0.01MF 16V C CAP.	
	C832	QDYB1CM-103Y	0.01MF 16V C CAP.	
	C834	QEKC0JM-226Z	22MF 6.3V E CAP.	
	C851	EETB1EM-106E	10MF 25V E.CAP.	
	C852	QCBB1HK-221Y	220PF 50V CER.CAP.	
	C853	QCBB1HK-221Y	220PF 50V CER.CAP.	
	C854	EETC1EM-226ZE	22MF 25V E.CAP.	
	C855	QETB0JM-227	220MF 6.3V E.CAP.	
	C856	QETN1AM-107Z	100MF 10V AL E.CA	
	C857	EETC1CM-476ZJC	47MF 16V E CAP.	
	C971	QDYB1CM-103Y	0.01MF 16V C CAP.	
	C972	QDYB1CM-103Y	0.01MF 16V C CAP.	
	C1001	QCGB1HK-102	1000PF 50V CER.CAP	A
	C1002	QCGB1HK-102	1000PF 50V CER.CAP	A
	C1003	QDGB1HK-103Y	0.01MF 50V CER.CAP.	C,J,U,UP,US,UT,UX,UY
		QDGB1HK-102Y	1000PF 50V CER.CAP	A,B,E,EN,EV
	C1004	QCGB1HK-102	1000PF 50V CER.CAP	
	C1005	QCGB1HK-102	1000PF 50V CER.CAP	
	C1006	QCGB1HK-102	1000PF 50V CER.CAP	
	C1021	QDYB1CM-103Y	0.01MF 16V C CAP.	U,UP,US,UT,UX,UY
	C1022	QCGB1HK-102	1000PF 50V CER.CAP	U,UP,US,UT,UX,UY
	C1023	QCGB1HK-102	1000PF 50V CER.CAP	U,UP,US,UT,UX,UY
	C1024	QETC1HM-225ZM	2.2MF 50V E.CAP.	U,UP,US,UT,UX,UY
	C1025	QCGB1HK-102	1000PF 50V CER.CAP	U,UP,US,UT,UX,UY
	C1026	QETC1HM-225ZM	2.2MF 50V E.CAP.	U,UP,US,UT,UX,UY
	C1027	QCBB1HK-101Y	100PF 50V CER.CAP.	U,UP,US,UT,UX,UY
	C1028	QCBB1HK-151	150PF 50V CER.CAP.	U,UP,US,UT,UX,UY
	C1029	QCBB1HK-561Y	560PF 50V CER.CAP.	U,UP,US,UT,UX,UY
	C1030	QETC1HM-225ZM	2.2MF 50V E.CAP.	U,UP,US,UT,UX,UY
	C1031	QDYB1CM-103Y	0.01MF 16V C CAP.	U,UP,US,UT,UX,UY
	C1032	QDYB1CM-103Y	0.01MF 16V C CAP.	U,UP,US,UT,UX,UY
	C1033	EETB1HM-475E	4.7MF 50V E.CAP.	U,UP,US,UT,UX,UY
	C1034	QFVJ1HJ-104Z	0.1MF 50V TF CAP.	U,UP,US,UT,UX,UY
	C1035	EETB1AM-107E	100MF 10V E.CAP.	U,UP,US,UT,UX,UY
	C1036	QCBB1HK-820Y	82PF 50V CER.CAP.	U,UP,US,UT,UX,UY
	C1037	QFVJ1HJ-333Z	0.033MF 50V CAP.	U,UP,US,UT,UX,UY
	C1038	QDXB1CM-472Y	4700PF 16V C.CAP.	U,UP,US,UT,UX,UY
	C1039	QDYB1CM-103Y	0.01MF 16V C CAP.	U,UP,US,UT,UX,UY
	C1040	QDXB1CM-332Y	3300PF 16V C CAP.	U,UP,US,UT,UX,UY
	C1041	QFVJ1HJ-333Z	0.033MF 50V CAP.	U,UP,US,UT,UX,UY
	C1042	EETC1EM-226ZE	22MF 25V E.CAP.	U,UP,US,UT,UX,UY
	C1043	QFVJ1HJ-474Z	0.47MF 50V CAP.	U,UP,US,UT,UX,UY
	C1044	QDYB1CM-103Y	0.01MF 16V C CAP.	U,UP,US,UT,UX,UY
	C1045	QETC1HM-225ZM	2.2MF 50V E.CAP.	U,UP,US,UT,UX,UY
	C1046	QCS31HJ-331Z	330PF 50V C.CAP.	A,B,E,EN,EV
	C1051	QFVJ1HJ-104Z	0.1MF 50V TF CAP.	
	C1052	QFVJ1HJ-104Z	0.1MF 50V TF CAP.	
	C1053	QDXB1CM-222Y	2200PF 16V C CAP.	
	C1054	QDXB1CM-222Y	2200PF 16V C CAP.	
	C1055	QFLM1HJ-393Z	0.039MF 50V M CAP.	
	C1056	QFLM1HJ-393Z	0.039MF 50V M CAP.	
		RESISTORS		
	R801	QRE141J-331Y	330 1/4W C RES.	
	R802	QRE141J-223Y	22K 1/4W C RES.	
	R803	QRE141J-223Y	22K 1/4W C RES.	
	R804	QRE141J-822Y	8.2K 1/4W C RES.	
	R805	QRE141J-822Y	8.2K 1/4W C RES.	
	R806	QRE141J-124Y	120K 1/4W C RES.	
	R807	QRE141J-103Y	10K 1/4W CARBON R	
	R808	QRE141J-103Y	10K 1/4W CARBON R	
	R809	QRE141J-103Y	10K 1/4W CARBON R	
	R810	QRE141J-103Y	10K 1/4W CARBON R	
	R811	QRE141J-103Y	10K 1/4W CARBON R	
	R812	QRE141J-103Y	10K 1/4W CARBON R	
	R813	QRE141J-103Y	10K 1/4W CARBON R	
	R814	QRE141J-103Y	10K 1/4W CARBON R	
	R815	QRE141J-563Y	56K 1/4W C RES.	

■ Electrical Parts List(System Control & Swith Board)

Block No.03

⚠	Item	Parts Number	Description	Area
	R816	QRE141J-563Y	56K 1/4W C RES.	
	R817	QRE141J-103Y	10K 1/4W CARBON R	
	R818	QRE141J-103Y	10K 1/4W CARBON R	
	R819	QRE141J-102Y	1K 1/4W C RES.	
	R820	QRE141J-102Y	1K 1/4W C RES.	
	R821	QRE141J-102Y	1K 1/4W C RES.	
	R822	QRE141J-102Y	1K 1/4W C RES.	
	R823	QRE141J-102Y	1K 1/4W C RES.	
	R824	QRE141J-102Y	1K 1/4W C RES.	
	R825	QRE141J-102Y	1K 1/4W C RES.	
	R826	QRE141J-102Y	1K 1/4W C RES.	
	R827	QRE141J-103Y	10K 1/4W CARBON R	
	R828	QRE141J-201Y	200 1/4W C.RES.	
	R829	QRE141J-201Y	200 1/4W C.RES.	
	R830	QRE141J-201Y	200 1/4W C.RES.	
	R831	QRE141J-104Y	100K 1/4W C RES.	
	R832	QRE141J-104Y	100K 1/4W C RES.	
	R833	QRE141J-104Y	100K 1/4W C RES.	
	R834	QRE141J-104Y	100K 1/4W C RES.	
	R835	QRE141J-104Y	100K 1/4W C RES.	
	R836	QRE141J-104Y	100K 1/4W C RES.	
	R837	QRE141J-104Y	100K 1/4W C RES.	
	R838	QRE141J-102Y	1K 1/4W C RES.	
	R839	QRE141J-102Y	1K 1/4W C RES.	
	R840	QRE141J-103Y	10K 1/4W CARBON R	
	R841	QRE141J-103Y	10K 1/4W CARBON R	
	R842	QRE141J-103Y	10K 1/4W CARBON R	
	R843	QRE141J-103Y	10K 1/4W CARBON R	
	R844	QRE141J-103Y	10K 1/4W CARBON R	
	R845	QRE141J-102Y	1K 1/4W C RES.	
	R846	QRE141J-102Y	1K 1/4W C RES.	
	R847	QRE141J-102Y	1K 1/4W C RES.	
	R848	QRE141J-102Y	1K 1/4W C RES.	
	R849	QRE141J-102Y	1K 1/4W C RES.	
	R850	QRE141J-103Y	10K 1/4W C RES.	
	R851	QRE141J-562Y	5.6K 1/4W C RES.	
	R852	QRE141J-3R9Y	3.9 1/4W C RES.	
	R853	QRE141J-183Y	18K 1/4W CARBON R	
	R854	QRE141J-332Y	3.3K 1/4W C RES.	
	R856	QRE141J-151Y	150 1/4W C RES.	
	R920	QRE141J-391Y	390 1/4W C.RES.	
	R921	QRE141J-102Y	1K 1/4W C RES.	
	R922	QRE141J-102Y	1K 1/4W C RES.	
	R923	QRE141J-122Y	1.2K 1/4W C RES.	
	R924	QRE141J-152Y	1.5K 1/4W CARBON R	
	R925	QRE141J-222Y	2.2K 1/4W C RES.	
	R926	QRE141J-272Y	2.7K 1/4W C RES.	
	R927	QRE141J-392Y	3.9K 1/4W C RES.	
	R928	QRE141J-562Y	5.6K 1/4W C RES.	
	R931	QRE141J-102Y	1K 1/4W C RES.	
	R932	QRE141J-102Y	1K 1/4W C RES.	
	R933	QRE141J-122Y	1.2K 1/4W C RES.	
	R934	QRE141J-152Y	1.5K 1/4W CARBON R	
	R935	QRE141J-222Y	2.2K 1/4W C RES.	
	R936	QRE141J-272Y	2.7K 1/4W C RES.	
	R937	QRE141J-392Y	3.9K 1/4W C RES.	
	R938	QRE141J-562Y	5.6K 1/4W C RES.	
	R939	QRE141J-103Y	10K 1/4W CARBON R	
	R940	QRE141J-183Y	18K 1/4W CARBON R	UX
		QRE141J-563Y	56K 1/4W C RES.	C,J,U,UP,US,UT
	R941	QRE141J-102Y	1K 1/4W C RES.	
	R942	QRE141J-102Y	1K 1/4W C RES.	
	R943	QRE141J-122Y	1.2K 1/4W C RES.	
	R944	QRE141J-152Y	1.5K 1/4W CARBON R	
	R945	QRE141J-153Y	15K 1/4W C RES.	
	R946	QRE141J-103Y	10K 1/4W CARBON R	
	R947	QRE141J-183Y	18K 1/4W CARBON R	UY
	R947	QRE141J-563Y	56K 1/4W C RES.	C,J
	R948	QRE141J-104Y	100K 1/4W C RES.	
	R949	QRE141J-104Y	100K 1/4W C RES.	
	R951	QRE141J-102Y	1K 1/4W C RES.	
	R952	QRE141J-103Y	10K 1/4W CARBON R	
	R953	QRE141J-183Y	18K 1/4W CARBON R	
	R954	QRE141J-563Y	56K 1/4W C RES.	A,C,J,U,UP,US,UT
	R955	QRE141J-201Y	200 1/4W C.RES.	
	R956	QRE141J-201Y	200 1/4W C.RES.	
	R957	QRE141J-201Y	200 1/4W C.RES.	
	R958	QRE141J-201Y	200 1/4W C.RES.	
	R961	QRE141J-201Y	200 1/4W C.RES.	
	R962	QRE141J-472Y	4.7K 1/4W C RES.	
	R963	QRE141J-102Y	1K 1/4W C RES.	
	R964	QRE141J-122Y	1.2K 1/4W C RES.	
	R981	QRE141J-201Y	200 1/4W C.RES.	
	R982	QRE141J-201Y	200 1/4W C.RES.	
	R983	QRE141J-201Y	200 1/4W C.RES.	
	R984	QRE141J-201Y	200 1/4W C.RES.	
	R985	QRE141J-103Y	10K 1/4W CARBON R	
	R986	QRE141J-183Y	18K 1/4W CARBON R	
	R992	QRE141J-152Y	1.5K 1/4W CARBON R	
	R993	QRE141J-222Y	2.2K 1/4W C RES.	
	R994	QRE141J-272Y	2.7K 1/4W C RES.	
	R995	QRE141J-392Y	3.9K 1/4W C RES.	
	R996	QRE141J-562Y	5.6K 1/4W C RES.	
	RA801	QRB169J-104	100K 1/10WRES. ARR	
	RA802	QRB169J-104	100K 1/10WRES. ARR	
	R1021	QRE141J-472Y	4.7K 1/4W C RES.	U,UP,US,UT,UX,UY
	R1022	QRE141J-472Y	4.7K 1/4W C RES.	U,UP,US,UT,UX,UY
	R1023	QRE141J-221Y	220 1/4W C RES.	U,UP,US,UT,UX,UY
	R1024	QRE141J-103Y	10K 1/4W CARBON R	U,UP,US,UT,UX,UY
	R1025	QRE141J-104Y	100K 1/4W C RES.	U,UP,US,UT,UX,UY
	R1026	QRE141J-563Y	56K 1/4W C RES.	U,UP,US,UT,UX,UY
	R1027	QRE141J-302Y	3K 1/4W C RES.	U,UP,US,UT,UX,UY
	R1028	QRE141J-104Y	100K 1/4W C RES.	U,UP,US,UT,UX,UY
	R1029	QRE141J-221Y	220 1/4W C RES.	U,UP,US,UT,UX,UY
	R1030	QRE141J-221Y	220 1/4W C RES.	U,UP,US,UT,UX,UY
	R1031	QRE141J-203Y	20K 1/4W C RES.	U,UP,US,UT,UX,UY
	R1032	QRE141J-203Y	20K 1/4W C RES.	U,UP,US,UT,UX,UY
	R1033	QRE141J-822Y	8.2K 1/4W C RES.	U,UP,US,UT,UX,UY
	R1034	QRE141J-103Y	10K 1/4W CARBON R	U,UP,US,UT,UX,UY
	R1035	QRE141J-393Y	39K 1/4W C RES.	U,UP,US,UT,UX,UY
	R1036	QRE141J-472Y	4.7K 1/4W C RES.	U,UP,US,UT,UX,UY
	R1037	QRE141J-153Y	15K 1/4W C RES.	U,UP,US,UT,UX,UY
	R1038	QRE141J-472Y	4.7K 1/4W C RES.	U,UP,US,UT,UX,UY
	R1039	QRE141J-103Y	10K 1/4W CARBON R	U,UP,US,UT,UX,UY
	R1040	QRE141J-333Y	33K 1/4W C RES.	U,UP,US,UT,UX,UY
	R1041	QRE141J-823Y	82K 1/4W C RES.	U,UP,US,UT,UX,UY
	R1042	QRE141J-271Y	270 1/4W C RES.	U,UP,US,UT,UX,UY
⚠	R1051	QRJ146J-4R7X	4.7 1/4W UNF.CARB	
⚠	R1052	QRJ146J-4R7X	4.7 1/4W UNF.CARB	
	R1053	QRE141J-393Y	39K 1/4W C RES.	
	R1054	QRE141J-393Y	39K 1/4W C RES.	
	R1055	QRE141J-102Y	1K 1/4W C RES.	
	VR901	QVQ0045-B54	50K VARIABLE	U,UP,US,UT,UX,UY
		OTHERS		
		E3400-439	FELT SPACER	
		GV30032-001A	FL HOLDER	
	J 81	QNB0038-001	SPK.TERMINAL	
	J 82	QNN0017-001	PIN JACK	
	L801	QQL173K-470Z	INDUCTOR	
	L802	QQL231K-220Y	INDUCTOR	
	L803	QQL29BJ-100Z	INDUCTOR	
	L805	QQL173K-470Z	INDUCTOR	
	L806	QQL173K-470Z	INDUCTOR	
	L851	QQL29BJ-100Z	INDUCTOR	

■ Electrical Parts List(System Control & Swith Board)

Block No.03

⚠	Item	Parts Number	Description	Area
	L852	QQR0779-001Z	INDUCTOR	
	L853	QQR0779-001Z	INDUCTOR	A
	S921	QSW0674-001Z	TACT SWITCH	
	S922	QSW0674-001Z	TACT SWITCH	
	S923	QSW0674-001Z	TACT SWITCH	
	S924	QSW0674-001Z	TACT SWITCH	
	S925	QSW0674-001Z	TACT SWITCH	
	S926	QSW0674-001Z	TACT SWITCH	
	S927	QSW0674-001Z	TACT SWITCH	
	S928	QSW0674-001Z	TACT SWITCH	
	S931	QSW0674-001Z	TACT SWITCH	
	S932	QSW0674-001Z	TACT SWITCH	
	S933	QSW0674-001Z	TACT SWITCH	
	S934	QSW0674-001Z	TACT SWITCH	
	S935	QSW0674-001Z	TACT SWITCH	
	S936	QSW0674-001Z	TACT SWITCH	
	S937	QSW0674-001Z	TACT SWITCH	
	S938	QSW0674-001Z	TACT SWITCH	
	S939	QSW0674-001Z	TACT SWITCH	
	S945	QSW0674-001Z	TACT SWITCH	
	S946	QSW0674-001Z	TACT SWITCH	
	S948	QSW0122-001	PUSH SWITCH	
	S949	QSW0518-001	PUSH SWITCH	
	S951	QSW0674-001Z	TACT SWITCH	
	S952	QSW0674-001Z	TACT SWITCH	
	S953	QSW0674-001Z	TACT SWITCH	
	S963	QSW0674-001Z	TACT SWITCH	
	S985	QSW0674-001Z	TACT SWITCH	
	S986	QSW0674-001Z	TACT SWITCH	
	S992	QSW0674-001Z	TACT SWITCH	
	S993	QSW0674-001Z	TACT SWITCH	
	S994	QSW0674-001Z	TACT SWITCH	
	S995	QSW0674-001Z	TACT SWITCH	
	S996	QSW0674-001Z	TACT SWITCH	
	S997	QSW0674-001Z	TACT SWITCH	
	X801	QAX0416-001Z	CERA LOCK	
	X802	QAX0401-001	CRYSTAL	
	CN115	QGB2510K2-06	CONNECTOR	
	CN810	QGF1201F3-21	VMC0332-R21	
	CN811	QGF1201F3-23	CONNECTOR	
	CN812	QGF1201F3-11	CONNECTOR	
	CN813	QGF1016F1-09	CONNECT TERMINAL	
	CN814	QGD2501C1-04Z	SOCKET ASSY	
	CN815	QGD2501C1-03Z	SOCKET ASSY	
	CN816	QGD2501C1-05Z	SOCKET ASSY	
	CN817	QGF1201C3-10	CONNECTOR	
	CN856	QGF1201C3-21	CONNECT TERMINAL	
	CN857	QGF1201C3-23	CONNECTOR	
	CN858	QGD2501C1-05Z	SOCKET ASSY	U,UP,US,UT,UX,UY
	CN859	QGF1201C3-10	CONNECTOR	
	CN860	QGF1201C3-21	CONNECT TERMINAL	
	CN861	QGF1201C3-17	CONNECT TERMINAL	
	CN862	QGF1201C3-21	CONNECT TERMINAL	
	CN863	QGA2501C1-02	2P CONNECTOR	
	CN921	QGF1016F1-09	CONNECT TERMINAL	
	CN971	QGF1201F3-10	CONNECTOR	
	FL801	QLF0059-001	FL TUBE	
	FW901	QUM134-34DGZ4	FLAT WIRE	
	FW902	QUM135-10DGZ4	FLAT WIRE	U,UP,US,UT,UX,UY
	FW951	QUM027-08DGZ3	FLAT WIRE	
	FW961	QUM025-12DGZ3	FLAT WIRE	
	FW971	QUM026-07Z3Z3	FLAT WIRE	
	FW972	QUM025-07Z3Z3	FLAT WIRE	
	JS971	QSW0538-001	ROTARY SWITCH	
	J1001	QNS0030-001	JACK	
	J1021	QNS0080-001	MICROPHONE JACK	U,UP,US,UT,UX,UY
	J1022	QNS0080-001	MICROPHONE JACK	U,UP,US,UT,UX,UY
	L1001	QQL231K-470Y	INDUCTOR	A
	L1002	QQL231K-470Y	INDUCTOR	A
	L1003	QQL231K-2R2Y	INDUCTOR I.M	
	RY 1	QSK0057-001	RELAY	
	SP801	VYH7653-001	I.C.PROTECTOR	

■ Electrical Parts List (CD Servo Control Board)

BLOCK NO. 04

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 251	NCS21HJ-100X	C CAPACITOR	10PF 5% 50V	
	C 252	NCS21HJ-100X	C CAPACITOR	10PF 5% 50V	
	C 253	NCB21EK-104X	C CAPACITOR	.10MF 10% 25V	
	C 254	QERF1AM-476Z	E CAPACITOR	47MF 20% 10V	
	C 255	NCB21EK-104X	C CAPACITOR	.10MF 10% 25V	
	C 281	NCB21HK-223X	C CAPACITOR	.022MF 10% 50V	
	C 291	QERF1AM-476Z	E CAPACITOR	47MF 20% 10V	
	C 601	NCB21HK-102X	C CAPACITOR	1000PF 10% 50V	
	C 602	NCB21HK-102X	C CAPACITOR	1000PF 10% 50V	
	C 603	NCB21HK-223X	C CAPACITOR	.022MF 10% 50V	
	C 604	NCB21HK-223X	C CAPACITOR	.022MF 10% 50V	
	C 605	NCS21HJ-271X	C CAPACITOR	270PF 5% 50V	
	C 606	NCS21HJ-181X	C CAPACITOR	180PF 5% 50V	
	C 607	NCB21HK-222X	C CAPACITOR	2200PF 10% 50V	
	C 608	NCB21HK-223X	C CAPACITOR	.022MF 10% 50V	
	C 610	NCB21EK-104X	C CAPACITOR	.10MF 10% 25V	
	C 611	NCB21EK-104X	C CAPACITOR	.10MF 10% 25V	
	C 612	QER41HM-105	E CAPACITOR	1.0MF 20% 50V	
	C 613	NCS21HJ-101X	C CAPACITOR	100PF 5% 50V	
	C 614	NCB21HK-273X	C CAPACITOR	.027MF 10% 50V	
	C 615	NCB21HK-472X	C CAPACITOR	4700PF 10% 50V	
	C 616	NCB21HK-103X	C CAPACITOR	.010MF 10% 50V	
	C 617	NCS21HJ-331X	C CAPACITOR	330PF 5% 50V	
	C 621	NCB21EK-104X	C CAPACITOR	.10MF 10% 25V	
	C 623	NCF21CZ-105X	C CAPACITOR	1.0MF +80:-20%	
	C 624	QER41AM-107	E CAPACITOR	100MF 20% 10V	
	C 631	QER41CM-106	E CAPACITOR	10MF 20% 16V	
	C 632	NCF21CZ-105X	C CAPACITOR	1.0MF +80:-20%	
	C 633	NCB21HK-223X	C CAPACITOR	.022MF 10% 50V	
	C 651	NCS21HJ-120X	C CAPACITOR	12PF 5% 50V	
	C 652	NCS21HJ-150X	C CAPACITOR	15PF 5% 50V	
	C 653	NCB21EK-104X	C CAPACITOR	.10MF 10% 25V	
	C 654	NCB21HK-223X	C CAPACITOR	.022MF 10% 50V	
	C 655	QER41AM-227	E CAPACITOR	220MF 20% 10V	
	C 656	NCB21EK-104X	C CAPACITOR	.10MF 10% 25V	
	C 657	NCB21HK-222X	C CAPACITOR	2200PF 10% 50V	
	C 658	NCB21HK-222X	C CAPACITOR	2200PF 10% 50V	
	C 661	NCB21EK-104X	C CAPACITOR	.10MF 10% 25V	
	C 662	QER41AM-107	E CAPACITOR	100MF 20% 10V	
	C 663	NCB21EK-104X	C CAPACITOR	.10MF 10% 25V	
	C 664	NCB21HK-223X	C CAPACITOR	.022MF 10% 50V	
	C 665	NCB21HK-223X	C CAPACITOR	.022MF 10% 50V	
	C 666	NCS21HJ-471X	C CAPACITOR	470PF 5% 50V	
	C 667	NCF21CZ-105X	C CAPACITOR	1.0MF +80:-20%	
	C 668	NCB21HK-473X	C CAPACITOR	.047MF 10% 50V	
	C 671	NCB21EK-104X	C CAPACITOR	.10MF 10% 25V	
	C 672	QER41AM-107	E CAPACITOR	100MF 20% 10V	
	C 801	NCB21HK-822X	C CAPACITOR	8200PF 10% 50V	
	C 802	NCB21HK-152X	C CAPACITOR	1500PF 10% 50V	
	C 811	NCS21HJ-221X	C CAPACITOR	220PF 5% 50V	
	C 812	NCS21HJ-221X	C CAPACITOR	220PF 5% 50V	
	C 813	NCS21HJ-221X	C CAPACITOR	220PF 5% 50V	
	C 814	NCS21HJ-221X	C CAPACITOR	220PF 5% 50V	
	C 821	NCF21CZ-105X	C CAPACITOR	1.0MF +80:-20%	
	C 822	QER41AM-227	E CAPACITOR	220MF 20% 10V	

BLOCK NO. 04

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 851	QER41CM-106	E CAPACITOR	10MF 20% 16V	
	C 852	QER41CM-106	E CAPACITOR	10MF 20% 16V	
	C 855	NCB21EK-104X	C CAPACITOR	.10MF 10% 25V	
	C 859	NCF21CZ-105X	C CAPACITOR	1.0MF +80:-20%	
	C 860	NCF21CZ-105X	C CAPACITOR	1.0MF +80:-20%	
	CN151	QGF1016F1-15	15FFC CONNECTOR	VIDEO CD	
	CN152	QGA2001F1-12	12P CN RIG	VIDEO CD	
	CN601	QGF1016F1-15	15FFC CONNECTOR	TRAVERSE	
	CN651	QGF1016F1-19	CONNECTOR	MAIN	
	CN652	QGF1016F1-05	CONNECTOR	OSD	
	CN653	QGF1016F1-13	CONNECTOR	CD TEXT	
	CN801	QGA2001C1-06	6P PLUG ASSY	TRAVERSE	
	CN851	QGD2503F1-03	SOCKET	DISC DETECTION	
	CN854	QGB2016K1-07	CONNECTOR	TRAY SWITCH	
	CN855	QGB2012K2-10	CONNECTOR	CAM SWITCH	
	IC251	UPD78055GCA37	IC	MICOM	
	IC601	AN8806SB-W	IC	RF AMP	
	IC651	MN35510	IC	DSP & DAC	
	IC801	BA6897FP-W	IC	PU DRIVE	
	IC851	TA8409S	IC	L MOTOR DRIVE	
	IC852	TA8409S	IC	R MOTOR DRIVE	
	L 851	QQL01BK-100Z	INDUCTOR	VS DE-COUPLE	
	L 853	QQL01BK-100Z	INDUCTOR	L MOTOR	
	L 854	QQL01BK-100Z	INDUCTOR	R MOTOR	
	Q 291	2SB1357/EF/-T	TRANSISTOR	/P.ON	
	Q 631	2SA1037AK/RS/-X	TRANSISTOR	APC	
	Q 842	DTA144ES-T	TRANSISTOR	/DISC	
	R 251	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 252	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 253	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 254	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 255	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 256	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 257	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 258	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 259	NRSA02J-101X	MG RESISTOR	100 5% 1/10W	
	R 260	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 261	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 262	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 263	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 264	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 265	NRSA02J-223X	MG RESISTOR	22K 5% 1/10W	
	R 266	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 267	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 268	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 269	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 274	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 275	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 276	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 277	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 278	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 279	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 281	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 282	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 283	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	

BLOCK NO. 04

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 284	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 285	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 286	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 287	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 288	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 291	NRSA02J-122X	MG RESISTOR	1.2K 5% 1/10W	
	R 292	NRSA02J-103X	MG RESISTOR	10K 5% 1/10W	
	R 293	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 601	NRSA02J-274X	MG RESISTOR	270K 5% 1/10W	
	R 602	NRSA02J-154X	MG RESISTOR	150K 5% 1/10W	
	R 603	NRSA02J-273X	MG RESISTOR	27K 5% 1/10W	
	R 604	NRSA02J-104X	MG RESISTOR	100K 5% 1/10W	
	R 605	NRSA02J-154X	MG RESISTOR	150K 5% 1/10W	
	R 606	NRSA02J-474X	MG RESISTOR	470K 5% 1/10W	
	R 607	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 611	NRSA02J-113X	MG RESISTOR	11K 5% 1/10W	
	R 612	NRSA02J-125X	MG RESISTOR	1.2M 5% 1/10W	
	R 631	NRSA02J-2R2X	MG RESISTOR	2.2 5% 1/10W	
	R 632	NRSA02J-100X	MG RESISTOR	10 5% 1/10W	
	R 634	NRSA02J-120X	MG RESISTOR	12 5% 1/10W	
	R 635	NRSA02J-121X	MG RESISTOR	120 5% 1/10W	
	R 636	NRSA02J-910X	MG RESISTOR	91 5% 1/10W	
	R 651	NRSA02J-271X	MG RESISTOR	270 5% 1/10W	
	R 652	NRSA02J-220X	MG RESISTOR	22 5% 1/10W	
	R 657	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 658	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 661	NRSA02J-220X	MG RESISTOR	22 5% 1/10W	
	R 662	NRSA02J-471X	MG RESISTOR	470 5% 1/10W	
	R 663	NRSA02J-124X	MG RESISTOR	120K 5% 1/10W	
	R 665	NRSA02J-683X	MG RESISTOR	68K 5% 1/10W	
	R 666	NRSA02J-155X	MG RESISTOR	1.5M 5% 1/10W	
	R 667	NRSA02J-562X	MG RESISTOR	5.6K 5% 1/10W	
	R 671	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 672	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 673	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 674	NRSA02J-101X	MG RESISTOR	100 5% 1/10W	
	R 675	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 676	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 677	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 678	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 679	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 680	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 681	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 682	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 683	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 684	NRSA02J-271X	MG RESISTOR	270 5% 1/10W	
	R 685	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 686	NRSA02J-101X	MG RESISTOR	100 5% 1/10W	
	R 687	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 688	NRSA02J-101X	MG RESISTOR	100 5% 1/10W	
	R 689	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 690	NRSA02J-101X	MG RESISTOR	100 5% 1/10W	
	R 691	NRSA02J-101X	MG RESISTOR	100 5% 1/10W	
	R 692	NRSA02J-101X	MG RESISTOR	100 5% 1/10W	
	R 693	NRSA02J-471X	MG RESISTOR	470 5% 1/10W	

BLOCK NO. 04

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 694	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 801	NRSA02J-222X	MG RESISTOR	2.2K 5% 1/10W	
	R 802	NRSA02J-472X	MG RESISTOR	4.7K 5% 1/10W	
	R 803	NRSA02J-123X	MG RESISTOR	12K 5% 1/10W	
	R 804	NRSA02J-154X	MG RESISTOR	150K 5% 1/10W	
	R 805	NRSA02J-123X	MG RESISTOR	12K 5% 1/10W	
	R 806	NRSA02J-223X	MG RESISTOR	22K 5% 1/10W	
	R 807	NRSA02J-222X	MG RESISTOR	2.2K 5% 1/10W	
	R 808	NRSA02J-223X	MG RESISTOR	22K 5% 1/10W	
	R 811	NRSA02J-473X	MG RESISTOR	47K 5% 1/10W	
	R 812	NRSA02J-223X	MG RESISTOR	22K 5% 1/10W	
	R 831	NRSA02J-151X	MG RESISTOR	150 5% 1/10W	
	R 832	NRSA02J-103X	MG RESISTOR	10K 5% 1/10W	
	R 842	NRSA02J-472X	MG RESISTOR	4.7K 5% 1/10W	
	R 851	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 852	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 853	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 854	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 855	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 856	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 857	NRSA02J-272X	MG RESISTOR	2.7K 5% 1/10W	
	R 859	NRSA02J-181X	MG RESISTOR	180 5% 1/10W	
	R 861	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 862	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 863	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 864	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 865	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 866	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 880	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 881	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 882	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 883	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 884	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 885	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 886	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 887	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	W 601	QUB220-07HPDT	SIN TWIST WIRE	D.GND	
	X 251	QAX0360-001Z	CRYSTAL	FOR IC251	
	X 651	QAX0413-001Z	CRYSTAL	FOR IC651	

■ Electrical Parts List (CD Changer Mechanism Switch Board)

BLOCK NO. 05

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	CN804	QGB2016J1-07	CONNECTOR		
	SW 1	QSW0507-001	LEVER SWITCH		
	SW 2	QSW0507-001	LEVER SWITCH		
	SW 3	QSW0507-001	LEVER SWITCH		
	SW 4	QSW0507-001	LEVER SWITCH		
	SW 5	QSW0507-001	LEVER SWITCH		
	SW 6	QSW0507-001	LEVER SWITCH		

■ Electrical Parts List (Cassette Mechanism Control Board)

BLOCK NO. 06

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 101	NCS21HJ-561X	C CAPACITOR	560PF 5% 50V	
	C 102	NCS21HJ-331X	C CAPACITOR	330PF 5% 50V	
	C 103	NCS21HJ-561X	C CAPACITOR	560PF 5% 50V	
	C 104	NCS21HJ-221X	C CAPACITOR	220PF 5% 50V	
	C 105	QEK40JM-227	E CAPACITOR	220MF 20% 6.3V	
	C 106	NCB21HK-333X	C CAPACITOR	.033MF 10% 50V	
	C 107	QEK41EM-475	E CAPACITOR	4.7MF 20% 25V	
	C 108	NCB21HK-393X	C CAPACITOR	.039MF 10% 50V	
	C 110	NCS21HJ-221X	C CAPACITOR	220PF 5% 50V	
	C 111	QEK41HM-104	E CAPACITOR	.10MF 20% 50V	
	C 112	QEK41CM-106	E CAPACITOR	10MF 20% 16V	
	C 113	NCB21HK-332X	C CAPACITOR	3300PF 10% 50V	
	C 114	QEK41EM-475	E CAPACITOR	4.7MF 20% 25V	
	C 115	NCB21HK-153X	C CAPACITOR	.015MF 10% 50V	
	C 116	NCB21HK-822X	C CAPACITOR	8200PF 10% 50V	
	C 117	NCB21HK-223X	C CAPACITOR	.022MF 10% 50V	
	C 119	NCB21HK-563X	C CAPACITOR	.056MF 10% 50V	
	C 120	NCS21HJ-330X	C CAPACITOR	33PF 5% 50V	
	C 201	NCS21HJ-561X	C CAPACITOR	560PF 5% 50V	
	C 202	NCS21HJ-331X	C CAPACITOR	330PF 5% 50V	
	C 203	NCS21HJ-561X	C CAPACITOR	560PF 5% 50V	
	C 204	NCS21HJ-221X	C CAPACITOR	220PF 5% 50V	
	C 205	QEK40JM-227	E CAPACITOR	220MF 20% 6.3V	
	C 206	NCB21HK-333X	C CAPACITOR	.033MF 10% 50V	
	C 207	QEK41EM-475	E CAPACITOR	4.7MF 20% 25V	
	C 208	NCB21HK-393X	C CAPACITOR	.039MF 10% 50V	
	C 210	NCS21HJ-221X	C CAPACITOR	220PF 5% 50V	
	C 211	QEK41HM-104	E CAPACITOR	.10MF 20% 50V	
	C 212	QEK41CM-106	E CAPACITOR	10MF 20% 16V	
	C 213	NCB21HK-332X	C CAPACITOR	3300PF 10% 50V	
	C 214	QEK41EM-475	E CAPACITOR	4.7MF 20% 25V	
	C 215	NCB21HK-153X	C CAPACITOR	.015MF 10% 50V	
	C 216	NCB21HK-822X	C CAPACITOR	8200PF 10% 50V	
	C 217	NCB21HK-223X	C CAPACITOR	.022MF 10% 50V	
	C 219	NCB21HK-563X	C CAPACITOR	.056MF 10% 50V	
	C 220	NCS21HJ-330X	C CAPACITOR	33PF 5% 50V	
	C 301	QEK41CM-106	E CAPACITOR	10MF 20% 16V	
	C 302	QEK41CM-476	E CAPACITOR	47MF 20% 16V	
	C 303	QEK41CM-226	E CAPACITOR	22MF 20% 16V	
	C 304	QEK41EM-475	E CAPACITOR	4.7MF 20% 25V	
	C 305	NCB21HK-393X	C CAPACITOR	.039MF 10% 50V	
	C 306	QEK40JM-227	E CAPACITOR	220MF 20% 6.3V	
	C 308	NCB21HK-562X	C CAPACITOR	5600PF 10% 50V	
	C 309	NCB21HK-562X	C CAPACITOR	5600PF 10% 50V	
	C 310	NCB21HK-223X	C CAPACITOR	.022MF 10% 50V	
	C 311	NCB21HK-682X	C CAPACITOR	6800PF 10% 50V	
	C 313	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 314	QCZ0205-155Z	ML C CAPACITOR	1.5MF	
	C 315	QCZ0205-155Z	ML C CAPACITOR	1.5MF	
	C 316	QFG32AJ-103Z	PP CAPACITOR	.010MF 5% 100V	
	C 318	NCB21HK-103X	C CAPACITOR	.010MF 10% 50V	
	C 319	QFG32AJ-821Z	TF CAPACITOR	820PF 5% 100V	
	C 321	NCB21HK-103X	C CAPACITOR	.010MF 10% 50V	
	C 322	QFG32AJ-152Z	M CAPACITOR	1500PF 5% 100V	
	C 327	QEK41CM-476	E CAPACITOR	47MF 20% 16V	

BLOCK NO. 06

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 328	NCS21HJ-151X	C CAPACITOR	150PF 5% 50V	
	C 329	NCS21HJ-151X	C CAPACITOR	150PF 5% 50V	
	C 330	NCS21HJ-151X	C CAPACITOR	150PF 5% 50V	
	C 332	NCS21HJ-151X	C CAPACITOR	150PF 5% 50V	
	C 335	NCB21HK-103X	C CAPACITOR	.010MF 10% 50V	
	C 336	NCB21HK-103X	C CAPACITOR	.010MF 10% 50V	
	C 337	NCB21HK-103X	C CAPACITOR	.010MF 10% 50V	
	C 338	NCB21HK-103X	C CAPACITOR	.010MF 10% 50V	
	C 339	QEK41CM-476	E CAPACITOR	47MF 20% 16V	
	C 340	NCB21HK-103X	C CAPACITOR	.010MF 10% 50V	
	C 341	QEKJ1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 342	QEK41EM-475	E CAPACITOR	4.7MF 20% 25V	
	C 343	QET41CM-106	E CAPACITOR	10MF 20% 16V	
	C 344	NCB21HK-472X	C CAPACITOR	4700PF 10% 50V	
	C 345	NCS21HJ-331X	C CAPACITOR	330PF 5% 50V	
	CN301	QGF1205F1-06	CONNECTOR		
	CN302	QGF1205F1-06	CONNECTOR		
	CN303	QGB2011M1-10	PWB CONECTOR		
	CN304	QGB2011M1-10	PWB CONECTOR		
	CN305	QGF1205F1-10	CONNECTOR		
	CN306	QGF1205F1-11	CONNECTOR		
	D 307	HZM5.1NB2-X	CHIP Z DIODE		
	D 308	HZM5.1NB2-X	CHIP Z DIODE		
	D 309	MA704A-X	S.K.DIODE		
	IC301	BA3126N	IC		
	IC302	AN7345K	IC		
	IC303	BU4094BCF-X	IC		
	IC304	BU4094BCF-X	IC		
	L 301	QQR0620-001	OSC COIL(BIAS)		
	L 303	QQL01BK-100Z	INDUCTOR		
	Q 102	DTC144TKA-X	TRANSISTOR		
	Q 103	DTC144EKA-X	TRANSISTOR		
	Q 105	2SC3576-JVC-T	TRANSISTOR		
	Q 202	DTC144TKA-X	TRANSISTOR		
	Q 203	DTC144EKA-X	TRANSISTOR		
	Q 205	2SC3576-JVC-T	TRANSISTOR		
	Q 302	2SC2001/K/-T	TRANSISTOR		
	Q 303	2SC2001/K/-T	TRANSISTOR		
	Q 304	2SC3576-JVC-T	TRANSISTOR		
	Q 305	2SC3576-JVC-T	TRANSISTOR		
	Q 306	2SC2412K/RS/-X	CHIP TRANSISTOR		
	Q 307	2SC2412K/RS/-X	CHIP TRANSISTOR		
	Q 308	2SC2412K/RS/-X	CHIP TRANSISTOR		
	Q 309	2SC2412K/RS/-X	CHIP TRANSISTOR		
	Q 312	2SB562/C/-T	TRANSISTOR		
	Q 313	2SC2412K/RS/-X	CHIP TRANSISTOR		
	Q 314	2SB562/C/-T	TRANSISTOR		
	Q 315	2SC2412K/RS/-X	CHIP TRANSISTOR		
	Q 316	2SA952/LK/-T	TRANSISTOR		
	Q 317	DTC124EKA-X	TRANSISTOR		
	Q 321	DTC144EKA-X	TRANSISTOR		
	Q 322	DTC144EKA-X	TRANSISTOR		
	Q 323	2SC2412K/RS/-X	CHIP TRANSISTOR		
	R 102	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 103	NRSA02J-183X	MG RESISTOR	18K 5% 1/10W	

BLOCK NO. 06

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 105	NRSA02J-220X	MG RESISTOR	22 5% 1/10W	
	R 106	NRSA02J-392X	MG RESISTOR	3.9K 5% 1/10W	
	R 107	NRSA02J-123X	MG RESISTOR	12K 5% 1/10W	
	R 108	NRSA02J-222X	MG RESISTOR	2.2K 5% 1/10W	
	R 109	NRSA02J-152X	MG RESISTOR	1.5K 5% 1/10W	
	R 111	NRSA02J-562X	MG RESISTOR	5.6K 5% 1/10W	
	R 112	NRSA02J-122X	MG RESISTOR	1.2K 5% 1/10W	
	R 113	NRSA02J-271X	MG RESISTOR	270 5% 1/10W	
	R 114	NRSA02J-391X	MG RESISTOR	390 5% 1/10W	
	R 115	NRSA02J-332X	MG RESISTOR	3.3K 5% 1/10W	
	R 117	NRSA02J-332X	MG RESISTOR	3.3K 5% 1/10W	
	R 118	NRSA02J-152X	MG RESISTOR	1.5K 5% 1/10W	
	R 119	NRSA02J-203X	MG RESISTOR	20K 5% 1/10W	
	R 120	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 121	NRSA02J-122X	MG RESISTOR	1.2K 5% 1/10W	
	R 202	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 203	NRSA02J-183X	MG RESISTOR	18K 5% 1/10W	
	R 205	NRSA02J-220X	MG RESISTOR	22 5% 1/10W	
	R 206	NRSA02J-392X	MG RESISTOR	3.9K 5% 1/10W	
	R 207	NRSA02J-123X	MG RESISTOR	12K 5% 1/10W	
	R 208	NRSA02J-222X	MG RESISTOR	2.2K 5% 1/10W	
	R 209	NRSA02J-152X	MG RESISTOR	1.5K 5% 1/10W	
	R 211	NRSA02J-562X	MG RESISTOR	5.6K 5% 1/10W	
	R 212	NRSA02J-122X	MG RESISTOR	1.2K 5% 1/10W	
	R 213	NRSA02J-271X	MG RESISTOR	270 5% 1/10W	
	R 214	NRSA02J-391X	MG RESISTOR	390 5% 1/10W	
	R 215	NRSA02J-332X	MG RESISTOR	3.3K 5% 1/10W	
	R 217	NRSA02J-332X	MG RESISTOR	3.3K 5% 1/10W	
	R 218	NRSA02J-152X	MG RESISTOR	1.5K 5% 1/10W	
	R 219	NRSA02J-203X	MG RESISTOR	20K 5% 1/10W	
	R 220	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 221	NRSA02J-122X	MG RESISTOR	1.2K 5% 1/10W	
	R 301	NRS181J-221X	MG RESISTOR	220 5% 1/8W	
	R 302	NRS181J-101X	MG RESISTOR	100 5% 1/8W	
	R 304	NRSA02J-393X	MG RESISTOR	39K 5% 1/10W	
	R 305	NRSA02J-103X	MG RESISTOR	10K 5% 1/10W	
	R 306	NRSA02J-103X	MG RESISTOR	10K 5% 1/10W	
	R 307	NRSA02J-103X	MG RESISTOR	10K 5% 1/10W	
	R 308	NRSA02J-152X	MG RESISTOR	1.5K 5% 1/10W	
	R 309	NRSA02J-152X	MG RESISTOR	1.5K 5% 1/10W	
	R 310	NRS181J-820X	MG RESISTOR	82 5% 1/8W	
	R 311	NRS181J-820X	MG RESISTOR	82 5% 1/8W	
	R 313	NRSA02J-3R3X	MG RESISTOR	3.3 5% 1/10W	
	R 314	NRSA02J-223X	MG RESISTOR	22K 5% 1/10W	
	R 315	NRSA02J-100X	MG RESISTOR	10 5% 1/10W	
	R 316	NRSA02J-223X	MG RESISTOR	22K 5% 1/10W	
	R 317	NRSA02J-100X	MG RESISTOR	10 5% 1/10W	
	R 318	NRSA02J-123X	MG RESISTOR	12K 5% 1/10W	
	R 319	NRSA02J-152X	MG RESISTOR	1.5K 5% 1/10W	
	R 321	NRSA02J-123X	MG RESISTOR	12K 5% 1/10W	
	R 322	NRSA02J-152X	MG RESISTOR	1.5K 5% 1/10W	
	R 327	NRSA02J-474X	MG RESISTOR	470K 5% 1/10W	
	R 328	NRSA02J-222X	MG RESISTOR	2.2K 5% 1/10W	
	R 329	NRSA02J-222X	MG RESISTOR	2.2K 5% 1/10W	
	R 330	NRSA02J-0R0X	MG RESISTOR	5% 1/10W	

BLOCK NO. 06

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 335	NRSA02J-222X	MG RESISTOR	2.2K 5% 1/10W	
	R 336	NRSA02J-392X	MG RESISTOR	3.9K 5% 1/10W	
	R 338	NRSA02J-222X	MG RESISTOR	2.2K 5% 1/10W	
	R 339	NRSA02J-222X	MG RESISTOR	2.2K 5% 1/10W	
	R 341	NRSA02J-222X	MG RESISTOR	2.2K 5% 1/10W	
	R 343	NRSA02J-0R0X	MG RESISTOR	5% 1/10W	
	R 345	NRSA02J-222X	MG RESISTOR	2.2K 5% 1/10W	
	R 346	NRSA02J-0R0X	MG RESISTOR	5% 1/10W	
	R 347	NRSA02J-392X	MG RESISTOR	3.9K 5% 1/10W	
	R 348	NRSA02J-222X	MG RESISTOR	2.2K 5% 1/10W	
	R 350	NRSA02J-472X	MG RESISTOR	4.7K 5% 1/10W	
	R 351	NRSA02J-151X	MG RESISTOR	150 5% 1/10W	
	R 353	NRSA02J-472X	MG RESISTOR	4.7K 5% 1/10W	
	R 354	NRSA02J-151X	MG RESISTOR	150 5% 1/10W	
	R 355	NRSA02J-332X	MG RESISTOR	3.3K 5% 1/10W	
	R 357	NRSA02J-103X	MG RESISTOR	10K 5% 1/10W	
	R 358	NRSA02J-222X	MG RESISTOR	2.2K 5% 1/10W	
	R 359	NRSA02J-123X	MG RESISTOR	12K 5% 1/10W	
	R 360	NRSA02J-433X	MG RESISTOR	43K 5% 1/10W	
	R 361	NRSA02J-183X	MG RESISTOR	18K 5% 1/10W	
	R 362	NRSA02J-123X	MG RESISTOR	12K 5% 1/10W	
	R 363	NRSA02J-183X	MG RESISTOR	18K 5% 1/10W	
	R 364	NRSA02J-433X	MG RESISTOR	43K 5% 1/10W	
	R 365	NRSA02J-203X	MG RESISTOR	20K 5% 1/10W	
	R 366	NRSA02J-123X	MG RESISTOR	12K 5% 1/10W	
	R 367	NRSA02J-102X	MG RESISTOR	1.0K 5% 1/10W	
	R 368	NRSA02J-391X	MG RESISTOR	390 5% 1/10W	
	R 369	NRSA02J-391X	MG RESISTOR	390 5% 1/10W	
	R 371	NRS181J-222X	MG RESISTOR	2.2K 5% 1/8W	
	R 374	NRSA02J-912X	MG RESISTOR	9.1K 5% 1/10W	
	R 375	NRSA02J-683X	MG RESISTOR	68K 5% 1/10W	
	R 376	NRS181J-6R8X	MG RESISTOR	6.8 5% 1/8W	
	VR101	QVP0008-503Z	SEMI V RESISTOR		
	VR201	QVP0008-503Z	SEMI V RESISTOR		
	VR301	QVP0008-103Z	SEMI V RESISTOR		
	WIRE	VWS304-10A13K	FLAT WIRE		

Electrical Parts List (Cassette Mechanism Switch Board)

BLOCK NO. 07

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	CN 1	QGB2011L1-10	10P PLUG ASSY		
	D 1	1SR139-100-T2	SI DIODE		
	IC 1	SG-105F3-BB,C	PHOTO SENSER		
	P 1	QNZ0104-001	POST PIN		
	SW 2	QSW0832-001	CASSETTE SWITCH	TAPE	
	SW 4	QSW0832-001	CASSETTE SWITCH	70U	
	SW 6	QSW0507-001	SWITCH		

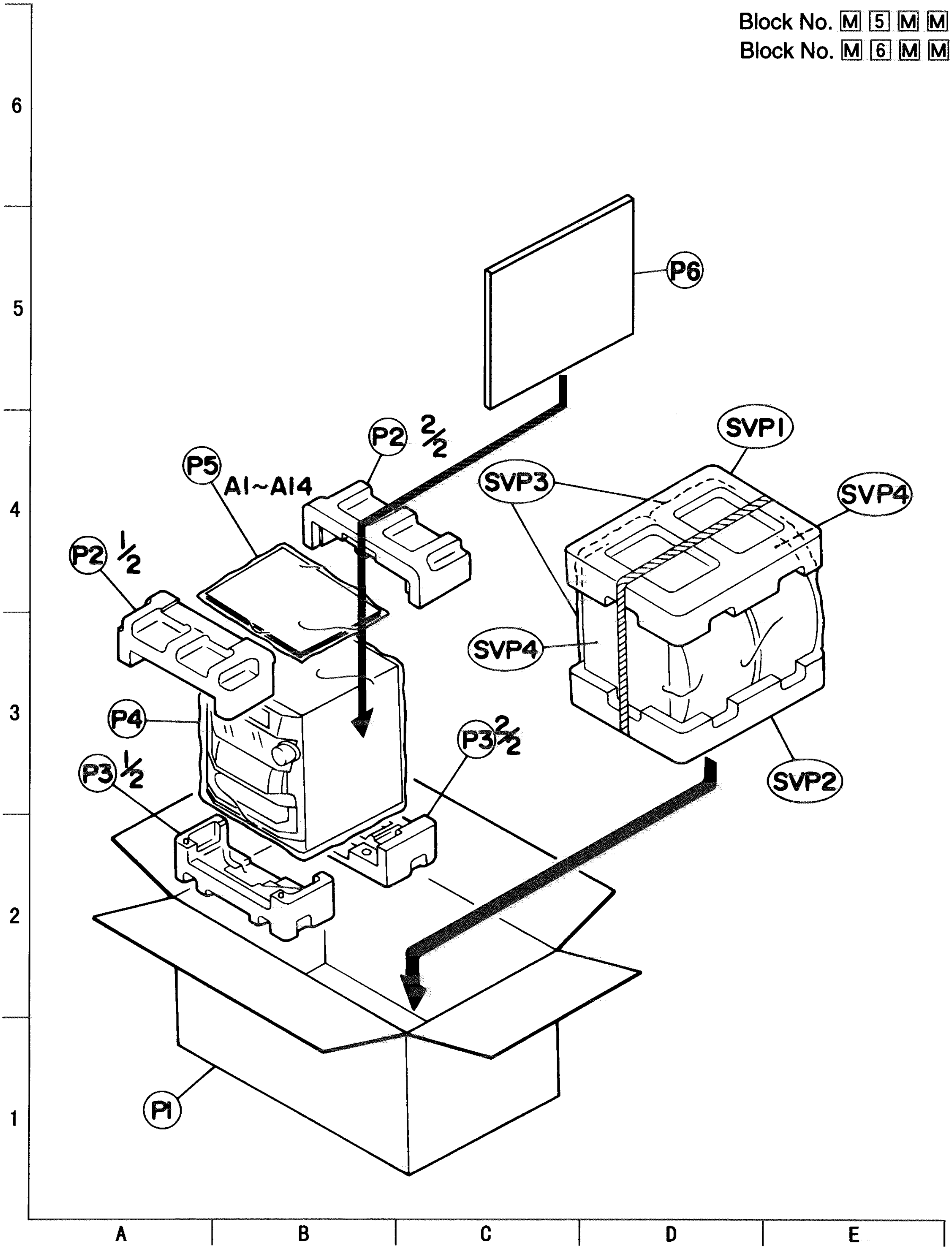
Electrical Parts List (Cassette Mechanism Control Board)

BLOCK NO. 08

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	CN 1	QGB2011L1-10	10P PLUG ASSY		
	D 1	1SR139-100-T2	SI DIODE		
	IC 1	SG-105F3-BB,C	PHOTO SENSER		
	P 1	QNZ0104-001	POST PIN		
	SW 1	QSW0832-001	CASSETTE SWITCH	R.REC	
	SW 2	QSW0832-001	CASSETTE SWITCH	TAPE	
	SW 4	QSW0832-001	CASSETTE SWITCH	70U	
	SW 5	QSW0832-001	CASSETTE SWITCH	F.REC	
	SW 6	QSW0507-001	SWITCH		

Packing Materials and Accessories Parts List

Block No. M5MM
Block No. M6MM


P6
P2 2/2
SVP1
P5
A1~A14
SVP3
SVP4
P2 1/2
SVP4
P4
P3 2/2
P3 1/2
SVP2
P1
6
5
4
3
2
1
A
B
C
D
E

■ Packing Parts List

Block No.M5MM

⚠	Item	Parts Number	Parts Name	Q'ty	Description	Area
	P1	GV20036-006A	CARTON BOX ASSY	1	MX-J50	C,J
		GV20036-007A	CARTON BOX ASSY	1	MX-J50	A
		GV20036-008A	CARTON BOX ASSY	1	MX-J50	U,US,UT,UX,UY
		GV20039-004A	CARTON BOX ASSY	1	MX-J50	UP
		GV20036-012A	CARTON BOX ASSY	1	MX-J56	C
	P2	GV10016-003A	PACKING CUSHION (UPPER)	1		
	P3	GV10017-002A	PACKING CUSHION (BOTTOM)	1		
	P4	QPC06506515P	POLY BAG	1		
	P5	QPC02503515P	POLY BAG	1		
	P6	GV40047-001A	PACKING SHEET	1		
	SVP1	720-TSPJ50-00	SPEAKER CUSHION (UPPER)	1	MX-J50	C,J
		720-TMXJ70-00	SPEAKER CUSHION (UPPER)	1	MX-J50	A,U,UP,US,UT,UX,UY
		720-TMXJ70-00	SPEAKER CUSHION (UPPER)	1	MX-J56	C
	SVP2	720-BSPJ50-00	SPEAKER CUSHION (BOTTOM)	1	MX-J50	C,J
		720-BMXJ70-00	SPEAKER CUSHION (BOTTOM)	1	MX-J50	A,U,UP,US,UT,UX,UY
		720-BMXJ70-00	SPEAKER CUSHION (BOTTOM)	1	MX-J56	C
	SVP3	700-120034-10	POLY BAG	2		

■ Accessories Parts List

Block No.M6MM

⚠	Item	Parts Number	Parts Name	Q'ty	Description	Area
	A1	GVT0012-001B	INSTRUCTION BOOK	1	ENG	J
		GVT0012-002A	INSTRUCTION BOOK	1	ENG,FRE	C
		GVT0012-003A	INSTRUCTION BOOK	1	ENG,SPA,POR,CHI,ARA	U,US,UT,UX,UY
		GVT0012-004A	INSTRUCTION BOOK	1	KOR	UP
		GVT0012-005A	INSTRUCTION BOOK	1	ENG	A
	A2	BT-20044G	SAFETY SHEET	1		C,J
	A3	BT-56001-2	WARRANTY CARD	1		A
	A4	BT-52002-1	WARRANTY CARD	1		C
	A5	BT-51020-1	SERVICE NETWORK	1		J
	A6	BT-56004-5	WARRANTY CARD	1		UP
	A7	BT-56002-2	SVC CENTER LIST	1		A
	A8	BT-20071B	SERVICE NETWORK	1		C
	A9	EWP201-011	ANTENNA WIRE	1		C,J,U,UP,US,UT,UX,UY
		EWP503-001	ANTENNA WIRE	1		A
	A10	QAL0014-001	AM LOOP ANTENNA	1		
	A11	VMZ0139-001	CONNECT PLUG	1		UT,UX
	A12	QAM0112-001	AC PLUG ADAPTER	1		U,US
	A13	RM-SMXJ50E	REMOCON	1		A
		RM-SMXJ50J	REMOCON	1		C,J
		RM-SMXJ50U	REMOCON	1		U,UP,US,UT,UX,UY
	A14	-----------	BATTERY	1		
	SVP4	MXJ50K-SPBOX-L	SPEAKER BOX(L)	1	MX-J50	C,J
		MXJ50K-SPBOX-R	SPEAKER BOX(R)	1	MX-J50	C,J
		MXJ70K-SPBOX-L	SPEAKER BOX(L)	1	MX-J50	A,U,UP,US,UT,UX,UY
		MXJ70K-SPBOX-R	SPEAKER BOX(R)	1	MX-J50	A,U,UP,US,UT,UX,UY
		MXJ56K-SPBOX-L	SPEAKER BOX(L)	1	MX-J56	C
		MXJ56K-SPBOX-R	SPEAKER BOX(R)	1	MX-J56	C

VICTOR COMPANY OF JAPAN, LIMITED
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